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ABSTRACT

In this yearbook, a group of scholars have written articles designed to present new insights into curriculum development and to push thinking beyond traditional frontiers. Each writer has placed emphasis on those facets of his field which he deems most significant. Paired with each of these presentations is a chapter in which a curriculum specialist or any other educator examines the professional implications. Some of the subjects covered by the presentations include (1) developing potentiality, (2) new concepts of knowledge, (3) self-management capacities in children, (4) new modes of man's relationship to man, (5) gaining freedom of value choice, (6) new insights and approaches to citizenship, and (7) creative vision and expression. (Editor/JF)

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NEW INSIGHTS and the CURRICULUM

Yearbook 1963

Prepared by the ASCD 1963 Yearbook Committee
Alexander Frazier, Editor and Chairman

ASSOCIATION FOR
SUPERVISION AND CURRICULUM DEVELOPMENT

A department of
the National Education Association
1201 Sixteenth Street, N.W.
Washington 6, D.C.

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From the Association

THIS yearbook of the Association for Supervision and Curriculum Development may well become the most discussed—and the most controversial—of our publications. We have asked a group of outstanding scholars to help us develop new insights and to push our thinking beyond the traditional frontiers. Each has responded in his own way, placing emphasis on those facets of his field which he deemed most significant. Paired with each of these challenging presentations is a chapter in which a curriculum specialist or other educator examines the professional implications.

Some will disagree with the analyses of new knowledge and the assumptions which are made. Others will question the validity of the implications as they are seen by the educators. But we will all be stimulated to think more deeply. Each reader will be provoked into a reexamination of the philosophical base upon which he functions. All these factors contribute to making this an exciting yearbook.

In the introductory chapter and in the section forewords, Alexander Frazier provides us with a framework which puts each of the diverse presentations in a contextual setting, giving unity to what might otherwise be regarded as an unstructured collection of points of view. The questions he poses and the specificity of his suggestions concerning the importance of new insights help us to benefit from the chapters which follow.

A yearbook such as this requires the coordinated efforts of many hardworking people. Certainly the entire Association owes its thanks to Dr. Frazier who was Chairman of the Committee. He and those who served with him have made a major contribution to the publication program. The scholars who prepared the chapters presenting the new insights deserve the appreciation of every member of the Association.

Those who have written the chapters which probe deeply into curriculum implications have demonstrated once again the tremendous potential which lies within the Association's membership. Our thanks go to each of them.

A special word of appreciation has been earned by the members of the Association staff. Robert R. Leeper, editor and associate secretary, has made a major contribution as he has guided the yearbook through the many stages from the initial planning to editing and final production. Margaret Gill, executive secretary, has given wise leadership to the publication program as a part of her over-all responsibility for the implementation of the Association's policies. To these two, we owe much.

Ruth P. Ely, editorial associate, ASCD, paged the volume, checked corrections and managed its technical production. Dolores J. Minor, ASCD staff assistant, secured permissions to quote and, with Jean L. Stolp, helped with proofreading the volume.

November 1962

CHESTER D. BABCOCK, *President*
The Association for Supervision
and Curriculum Development

Contents

From the Association — iii

Chester D. Babcock

The 1963 Yearbook Committee and Contributors — vii

By Way of Introduction

New Insights: Toward What Ends? — 1

Alexander Frazier

Potentiality: Its Definition and Development — 9

1 Four Ways To Look at Potentialities — 11

Lawrence K. Frank

2 Developing Potentiality—Creed or Pipe Dream? — 38

Paul Hoover Bowman

Knowledge: New Concepts and Possibilities — 55

3 We Need a New Picture of Knowledge — 57

Marshall McLuhan

4 Knowledge and the Curriculum — 71

Alice Miel

Self-Management: Where We Are and Where We Want To Go — 105

5 Self-Management Capacities in Children — 107

Lois Barclay Murphy

6 Toward More Autonomy for Learners — 121

Fannie R. Shaftel

Relationships: New Modes and Their Meanings 142
7 New Modes of Man's Relationship to Man 144
Dwayne Huebner
8 Education Is Human Relations 165
Robert E. Bills

Across Cultures: From Inside Out 188
9 Gaining Freedom of Value Choice 190
Rhoda Métraux
10 Education for Independent Valuing 221
Hilda Taba

Citizenship: New Insights and Approaches 241
11 Developing Good Citizens: Sources and Positions 243
Lloyd Allen Cook
12 A Curriculum for Citizenship Education 263
Victor B. Lawhead

Creativity: Sources and Circumstances 283
13 Creative Vision and Expression 285
Frank Barron
14 Freeing Capacity To Be Creative 306
Jane Franseth

Notes on Contributors to the Yearbook 323
ASCD Board of Directors 326
ASCD Executive Committee 326
ASCD Headquarters Staff 328

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By Way of Introduction

New Insights | Toward What Ends?

Alexander Frazier

WHEN we gain new insights, we ought to be able to develop better programs of instruction. Often, we can and we do. But new insights do not always come with their best uses at once apparent. Sometimes these have to be puzzled out.

A classic example, reported by Maria Montessori[1] from the early days of "scientific pedagogy," was the application of new knowledge to the design of school furniture. At the close of the century, this was a major educational concern. Each "cult of pedagogy" and even several nations had a model chair. The aim was to "render the child visible in all his immobility" and "force him to assume the position considered to be hygienically comfortable." But toward what ends? One was "the prevention of immoral acts in the classroom"; another, prevention of curvature of the spine.

Both ends are understandable, given the situation of too many children crowded together for too long on intolerably uncomfortable benches. However, it was the situation itself to which new insights most needed to be applied. The knowledge being gained from physiology, physical anthropology, psychology, and hygiene—what did it have to suggest about the kind of program that would be best for children? As Madame Montessori and others saw it, the real problem was how to get children off the benches and out of the chairs. And, of course, how to create a program that would nourish wholesome growth and challenge the fuller development of capacity to learn.

In this yearbook, by pairing a chapter reporting new insights with one reflecting on curriculum implications, we have tried to forward the process of identifying the best uses of new knowledge. We would not claim to have exhausted all the implications of each base chapter. In fact, we are aware that many have been overlooked. However, we accept the shortcomings that would seem to inhere in such an effort as we have made. Perhaps what we are trying most of all to do is to suggest the kinds of uses to which new insights from fields pertinent to education may be put or at least the processes through which we need to go in finding good uses.

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[1] Maria Montessori. *The Montessori Method.* New York: Frederick A. Stokes Company, 1912. p. 15-20.

Some Ways To Use New Insights

With this general objective in mind, there may be some value in introducing the yearbook with a framework of the ways in which new insights have seemed to suggest new ideas to us. The uses are sometimes suggested by the reporter of new insights, of course, as well as by the interpreter; both sources are cited in the illustrations to follow.

New insights may help us ask new questions. In Montessori's day, new knowledge did stimulate the better design of school furniture; but it helped, too, to shape the more basic question to which Madame Montessori devoted her life. In our day and perhaps always, in the words of one analyst,

> The danger . . . is that man's dulled senses may no longer encounter the objects themselves but only what he expects and already knows about them, the labels formed by his society. The closed world of this perspective ceases to hold any wonder. Everything has its label, and if one does not know it the experts will tell him.[2]

New knowledge can help us answer old questions better, of course. But often, if we are to break through to new possibilities, we have to assume another perspective on the whole matter at hand. We have to learn how to ask the kind of questions that will be newly liberating.

This volume gives numerous examples of what this process looks like. Alice Miel considers most carefully the questions about the nature of learning that Marshall McLuhan proposes—and they are new questions. She feels, though, that the prospect of finding a single answer, in this case perhaps through a focus on television, could be more limiting than liberating for curriculum improvement. Therefore, after reviewing other sources of new insights on knowledge, she chooses as the key question one posed by Arthur W. Foshay. In view of a new sense of the integrity of the disciplines, we may well wonder what may happen to our commitment to learning through problem solving. "Can we have it both ways?" Foshay asks. In proposing a curriculum that might answer this new question, Miel draws on the insights McLuhan reports from communication theory but goes to her other sources, too. She seeks a new position or perspective as a framework for her proposals, one that she has necessarily to define for herself.

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[2] Ernest G. Schachtel. *Metamorphosis.* New York: Basic Books, 1959. p. 238.

Similarly, Hilda Taba summarizes the insights proposed for our consideration by Rhoda Métraux and then places beside the summary a statement of the educational perspective from which it may best be viewed. In relating the two, Taba finds a number of points at which new insights from anthropology may need to be balanced with our understandings from other fields. But she accepts Métraux's central question: Can we educate for openness more consciously and quickly?

Again, in reviewing the new studies on creativity, Jane Franseth decides that the key issue may have to be defined by educators on their own terms or in their own vocabularies. Those who have reopened the area through their research, Frank Barron and the psychologists of various other schools, have helped us ask a new question: Can creative behavior be taught—or at least more fully released? But some of the psychologists would not themselves ask this question; it lies beyond their province.

New insights may lead to new questions. The process is not automatic, however, and we have to bring our full thought to bear on using new insights on our own terms.

New insights may help us see new distinctions that need to be made. All of us face many areas of our experience in which we have not made as much differentiation of meaning as we might find useful; there are "always segments of reality," to use the language of a linguistically oriented psychologist, "about which we are ignorant," possibly because of lack of interest or lack of opportunity to learn or—and here is where our present concern comes in—"because nobody has yet remarked, investigated, or called attention to a particular fact." [3]

When someone does, then the new knowledge can help us make distinctions that deepen our perceptions and alter our behavior in countless ways. We recall the changes that came when we learned to be more discriminating in recognizing and measuring individual differences. We would have trouble in trying to remember what our outlook was like before we began to see children as moving through predictable growth stages. Our conception of the relationship between personality development and cultural forces is now so much a part of us that we would be lost without it.

Each of the seven basic chapters in this volume projects new insights that can lead to new distinctions. Often the direction is pointed to by the writer. Lawrence Frank, for example, wonders what difference it would make in our thinking if we began to take seriously the possibility that potentiality is often interfered with or damaged by prenatal or fetal mishaps; or, perhaps more immediately relevant as we now see it, what would happen if we understood fully and could help parents understand how the way children are cared for and controlled affects the ability they develop for making use of themselves; or what we might be able to do if we worked out a more responsible position for the school as an agency for the retrieval and development of human capacities.

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[3] Joseph Church. *Language and the Discovery of Reality.* New York: Random House, 1961. p. 51.

Similarly, in Chapter 7, Dwayne Huebner helps us see that understanding and relating to others are much more than simply a matter of benevolent behavior. If we are to learn other ways of regarding our world and to create better ways, then we must find new modes of relationship that make the realization of such ends more likely. Lois Barclay Murphy, in Chapter 5, is freshly explicit about the relevance of the child's freedom to explore his early environment to the growth of his fund of cognitive distinctions and his capacity for self-direction. Frank Barron, in his chapter, cuts through the underbrush of ambiguities about who is creative by basing his report largely on the direct study of mature artists.

In Chapter 11, Lloyd Cook attacks head on the lack of analytical thinking that has caused education for citizenship to be so often treated unrealistically or casually. Rhoda Métraux, in her chapter, makes new distinctions on the question of cultural relativism and extends in depth our understanding of values and valuation in our culture and others.

Each of the writers touches, of course, on other issues or topics for which new discriminations are developing or are needed. But those mentioned here may be taken as illustrative of the use of new insights to establish finer shades of meaning in thinking about and dealing with our problems.

New insights may lead us to reexamine some of the assumptions on which we have been operating. The most fruitful field of ideas for study, Gardner Murphy has suggested,[4] is to be found in reexamination of our most cherished assumptions. Doubtless, this is true; we are all circumscribed by our experience, and perhaps we tend to seek solutions for our failures by affecting change in others rather than in ourselves. Yet even if we try to be more self-conscious, we may not sense where our real problem lies. "The boundary of a state of slavery is the absence of awareness of it."[5]

[4] Gardner Murphy. *Human Potentiality.* New York: Harper and Brothers, 1958.

[5] Nikolai Berdyaev. *Slavery and Freedom.* Translated by R. M. French. New York: Charles Scribner's Sons, 1944. p. 60.

New insights should help in making us more aware of our operating principles and their shortcomings, and certainly are basic to us in any effort we make to establish new theoretical formulations. But using new insights for recasting or reformulating our ways of approaching our many tasks can be a slow and arduous affair. We are all newly aware of the possibility that capacity for learning is much more developable than we may have thought and is hampered in a great variety of ways, about some of which we may be able to do more than we have thought. To make full use of such new inklings or beginnings of insight, many of which are reported in Frank's chapter, we will need to do a lot of reassessment of our present assumptions.

What would really happen to our instructional programs, to take another example:

If we could fully grasp the many new assumptions about learning that are found in Marshall McLuhan's definition of nonlinear learning? *If* we could accept and act on the idea of "simultaneity of information structure" and could test out the substitution of "insight for point of view and active participation for passive consumer appreciation"? *If* we were able to visualize what schooling would be like if it ceased "to be a processing of the young for adult tasks" and became "the total lifetime task of all members of the community"?

One of the challenges we always have to face in making use of new insights, of course, is to act in accordance with them. Thus, Paul Bowman asks of our belief that potentialities can be developed: "Creed or pipe dream?" If we are to use new assumptions, we must do more than frame them; we must test them in action.

Similarly, Victor Lawhead proposes that if we are to accept a newly realistic orientation toward citizenship education, as would be indicated if we respond to Cook's analysis of new understandings from the study of juvenile delinquency, mass media, and community power structures, then we ought to design a program of general education that makes it possible for students to learn through a multidisciplinary approach to problem solving in real-life contexts.

New assumptions for action have first to be derived and stated, and for this act new insights ("a change in the structure of consciousness, a change in the scale of values"[6]) are requisite. But new assumptions are never really ours until they have been put to the test.

New insights may help us respond more fully to the things we already understand fairly well. New insights need not always cause great revisions in our thinking; they may serve simply to extend our present insights, to further, as the poet puts it, "the oblique reach of the sense through layers of recognition"[7] or perhaps, as a distinguished scientist and philosopher, Père Teilhard, points out in describing the need for seeing the living world more clearly, to advance in "the elaboration of ever more perfect eyes within a cosmos in which there is always something more to be seen."[8]

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[6] Nikolai Berdyaev, *op. cit.*, p. 69.

We are always searching for whatever will help us push through present layers of the known toward the something more that might enable us to function with greater effectiveness. Thus, Franseth can raise a series of questions on the relevance of new insights about creativity to some of the recent trends that may distress us—excessive testing, grouping "experiments" and the like.

In the same vein, Taba wonders whether the goal of education for greater freedom of value choice and the insights that bear on its achievement may not also, or even perhaps necessarily, speak to us about our conception of "knowledge" and how it is created by the young learner.

From another position, Bills assumes responsibility for reinterpreting a set of insights derived from sources relatively unfamiliar to us, the existentialist philosophers and theologians, in terms of concepts that we have had more opportunity to think about. By noting the similarities between Huebner's philosophic treatment and the central ideas of the perceptual psychologists, Bills helps us get at least a start on assimilating a statement that might otherwise strike some of us as rather puzzling.

Fannie Shaftel is much concerned with reexamining the instructional program in view of the new insights about structure, particularly those derived from the idea of open and closed systems. What more can the school do to make sure that children really have a chance to create the kind of structure that does not close them in but can be built onto and extended?

New insights, then, often serve to strengthen or extend present understandings in ways that enrich our thinking without necessarily redirecting it.

New insights may help us imagine new possibilities. While we may, in terms of a given problem, possess the "want of satisfaction with things as they are" that Shahn[9] defines as basic to creating anything in any field, we may still need something more to work with than we presently have. New insights may provide us with the material for creating or imagining new possibilities for solving our problems, perhaps through a new program of some kind or even through defining our goals in different terms.

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[7] Alastair Reid. "Ghosts." *Oddments, Inklings, Omens, Moments.* Boston: Little, Brown and Company, 1959. p. 5.

[8] Pierre Teilhard de Chardin. *The Phenomenon of Man.* Translated by Bernard Wall. New York: Harper and Brothers, 1959. p. 31.

[9] Ben Shahn. *The Shape of Content.* Cambridge, Massachusetts: Harvard University Press, 1957. p. 76-77.

There are many illustrations of such imaginings in this yearbook. Perhaps the most elaborately worked out are Miel's three-cycle curriculum intended to help us achieve both curricular goals and Lawhead's reconceptualization of the core program. But there are countless other proposals and suggestions and many questions raised for further reflection—Bowman's query about the use of the first year in school as a time of intensive study of individual children; Shaftel's suggestion that new ways of teacher education may be basic to the development of autonomous learners; Taba's insistence on integrating knowing, thinking and valuing while differentiating the ways of learning appropriate to each; Bills' inquiry into the factors and influences that most directly affect the setting up of productive classroom climates; and Franseth's wonderment about the relationship between creative behavior and sound mental health. Equally important, the chapters reporting new insights contain many cues to the exercise of imagination that have not been responded to by the interpreters in their chapters. There is just too much to respond to fully. A thorough treatment of all the implications in most of the basic chapters would have required more space than we have here.

But for the reader of this yearbook, we would recommend a return to these chapters after having read our reactions to them. What else is there in Frank's fourfold look at potentiality that deserves further reflection? In Métraux's analysis of values and valuing? In Huebner's description of "conversation"?

Actually, we all bring our own evolving viewpoint with us into every re-encounter with thoughtful writing. We would hope that many of these chapters would be felt to be worth returning to next month or next year for a second or third go at mining them for the kinds of ideas that may lead to the imagining of new possibilities.

Our Intention—To Honor Our Sources

These, then, are some of the uses of new insights. Perhaps the reader will find the distinctions made between or among the uses somewhat tenuous. That may well be. The framework here proposed has been constructed after the final editing of the yearbook manuscript and has as its main purpose the possibly futile effort to maintain that there is a unity of sorts in a book intended to be highly diverse. Each of the fourteen authors has written on his own terms, although several of the chapters of interpretation have had the benefit, if such it was, of reactions from yearbook committee members.

Other and perhaps better frameworks could have been proposed in which to approach the yearbook. One in particular that has pressed on the writer has partially come through—an emphasis on the big ideas that insist on reappearing in chapter after chapter, ideas that draw on several disciplines and that seem to be in everybody's mind. At least two of these have escaped bounds and have plainly identified themselves in the introduction: our new insights into capacity and our new perplexities about the nature of knowledge. Others that might have and perhaps should have stood up tall in the same way certainly do so in the pages of the book—the magnificence of the new way of looking at the human dialogue that is the key to Huebner's chapter but is central, too, to McLuhan's and really to Métraux's and is touched on by others; the brilliance and resonance of the concept of nonlinear learning and of instant communication and community that is McLuhan's concern but is so insightfully put in its transcultural context by Métraux; and the depth of the new challenge to our past ideas about adjustment that is to be found in the concept of balanced progress and regression derived so variously, first by Murphy from her study of normal children and college youth and then by Barron in terms of creative artists. These are some of the big ideas that seem to stride across these chapters.

But, whatever may be the best way to approach the yearbook, our intention in it has been to honor the contribution that can be made to educational thinking by the knowledge derived from relevant fields and to celebrate our professional coming of age as represented by a more active search for such insights. We are not so naive, we hope, as to expect that for every new insight there will be an immediate new idea for more effective teaching. We might grant that half our professional problem is learning to be open to new insights, to exercise "the art of receptivity" that Huxley[10] makes the basis of education in his new utopia. We might even be willing to agree with the perhaps gently cynical wisdom of a noted biologist that if future knowledge "should not resolve the problem at hand, it will certainly make us see its insolubility in a different way."[11] In truth, seeing a problem differently is often the first step toward its solution.

Learning to see our problems in different ways, however much yet may remain to be seen before genuinely better ways of working with children and youth can be developed, is perhaps our central professional task. We hope this yearbook honors such an effort and contributes to it.

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[10] Aldous Huxley. *Island*. New York: Harper and Brothers, 1962. p. 243. Chapter 13, p. 230-67, deals with education in Pala, his new utopia.

[11] Jean Rostand. *The Substance of Man*. Translated by Irma Brandeis. Garden City, New York: Doubleday and Company, 1962. p. 94.

POTENTIALITY | ITS DEFINITION & DEVELOPMENT

IN the past ten years, we have seen a revolution in the level of expectation that we have held for ourselves in almost every realm of our national life. "Are we demanding enough of ourselves and our children?" is the way the issue was put by the Rockefeller Report. Our answer has come in the countless ways in which we are at work to improve our economic productivity, to reexamine our accomplishments in technology, and to retrieve from underdevelopment many of our human resources.

Education has been called upon to assume many new responsibilities in this revolution. Yet none has been more quickly assumed than that of reassessing our conception of human potentiality and trying to imagine and implement better conditions for its fuller development. Research, subsidized by federal funds, has helped us in understanding the needs of the mentally retarded and the gifted. Such successful research has been followed by an amazing growth of concern for underdevelopment in other groups—in the bright but underachieving, in bilingual communities, in segregated situations, in the downtown urban schools newly perceived as agents of acculturation for the in-migrants from rural or disadvantaged areas of America.

In fact, as we have freed ourselves of whatever it may have been that stood in the way of our imagining new possibilities for releasing or developing potentiality, we have begun to examine more closely our school program for everybody. What helps and what hinders in the stimulation of each learner to full development? We have also asked another question: What do we mean by full development?

In answering these questions, we have called upon the findings of specialists in many disciplines. We have far yet to go, however, as the opening chapter of this yearbook indicates, in exhausting the leads we may gain there. Drawing on his many years of study in the behavioral sciences, Lawrence K. Frank has brought into focus four ways in which potentialities may profitably be viewed. Any one of the four—the process of enculturation, the clinical assessment of personality, the pathway of growth and development, and education as evocation—would suffice to give us stimulus to further action. But together they form a base so broad that Dr. Frank's challenge to the school as a social institution will strike us as both thoroughly justifiable and long overdue.

It is this challenge that Paul H. Bowman accepts in his companion chapter. He views the initial chapter in the light of his experience as director of the Quincy Youth Development Project and from a new vantage point which he occupies in the field of mental health. He projects a great variety of practical and provocative next steps that would take us further on our way in redefining and realizing the full range of valued human potentialities.

Chapter 1

Four Ways To Look at Potentialities

Lawrence K. Frank

WHEN we discuss the question of developing potentialities, we need a longer and deeper perspective and a clearer recognition of how our beliefs and expectations may be biased by our cultural traditions and our own individual personality orientation. Accordingly, we may usefully examine the concept of human potentialities as we are beginning to understand this concept from studies of other cultures, from studies and treatment of aberrant personalities, from recent studies of human growth and development, and also of learning.

Enculturation and Potentiality

All over the world we find groups of people, each living in its own cultural world, which developed ages ago and which has provided a persistent design for living. Each cultural group has selectively recognized and utilized some of the potential resources of its environment and has often ignored or rejected other possibilities, even foregoing available food supplies. Also, each group has selectively recognized, cultivated and rewarded some human potentialities and has rejected or severely suppressed other potentialities to establish and maintain the kind of personality or character structure which it favors.

Human Nature as Culturally Defined

Looking at the wide array of cultures, we may say that from our human potentialities each cultural group has produced the kind of human nature and conduct which it believes to be desirable and essential for its way of living in its symbolic cultural world. Moreover, every culture gives each of its members an image of himself as an expression of that version of human nature and expects him to exhibit whatever the culture believes to be necessary for fulfilling that human nature.

This amazing diversity of human nature indicates that the oft quoted statement, "You can't change human nature," has a profound significance which we usually fail to grasp. We interpret this statement to mean that human nature is rigid and unchangeable. Yet it is clear that whatever human nature the members of a group exhibit is developed in the child and adolescent, since no child arrives with inborn patterns of social conduct. Although the child seems to have many capacities and needs for group living, he must be inducted into the cultural and social world of his parents. Indeed, unless each generation of children is inducted into the symbolic cultural world of the parents' generation and taught how to function and act and what to believe, to think, to speak and to feel in all the various situations and relations of living, the continuity of that culture will be broken.

Moreover, as we are discovering, a child from one cultural group may be reared in another and as he grows up will develop the personality makeup, the character structure, the "human nature" of his adopting culture. There are, of course, constitutional and temperamental differences which may limit the responsiveness of any individual to his own or another culture. There are obvious differences in size, shape, color, and some physiological functional capacities, but all human beings have the same mammalian ancestry and organic capacities. This human organism is amazingly flexible, even plastic, and can be shaped into whatever patterns parents may believe to be the right, correct and true way of living.

If man had not been flexible and plastic, capable of learning to live in a symbolic world, we would have had to adapt to nature like other organisms which have reached the end of the evolutionary road through specialization and differentiation. By creating a symbolic cultural world with tools and techniques, man has been able to develop a human way of living that can be altered and reoriented.

First Experiences—the Beginning of Selection

As we look at this process of enculturation, we see that the infant arrives with all the "wisdom of the body" inherited from his mammalian and premammalian ancestors. He comes with an inborn repertory of basic physiological capacities for breathing; eating, digesting and eliminating; sleeping; and reacting emotionally to pain, threats and deprivations.

Beginning at birth, each child is subject to whatever his family, following its cultural traditions, believes to be necessary for the baby's welfare and future development. In some cultures, the infant is kept close to the mother, carried on her hip or back, in a sling or a parka, continually feeling her warm body and enjoying these bodily contacts. In other cultures, the infant is tightly swaddled, bound from neck to toe so that he cannot move his arms or legs, and is unwrapped only for occasional cleansing. Or the infant may be put on a cradle board, as among our Southwest Indians, and stood up in the family circle, unable to kick or move his arms and therefore passively accepting whatever his parents may offer.

In our culture, we used to keep the baby near the mother, sleeping in a cradle or trundle bed and so available for frequent nursing. But since 1900 the practice has been to keep the baby, who is usually born in a hospital, in a bassinet away from the mother, whom he sees only for occasional scheduled nursing or, if bottle fed, may see but seldom. More recently, the practice of "rooming in" and self-demand feeding has been established in some hospitals, keeping the baby with the mother to be cleansed and fed and cuddled whenever she may wish, thus restoring the basic biological mother-child relation.

These different practices of infant care provide significant variations in the first experiences of the child because what is done to and for the child in these earliest days operates to evoke some of his potentialities and to deny or suppress others. Perhaps of major importance is the child's earliest tactile communications since these constitute his first mode of interpersonal relations and communication with the world. He may be deprived of such tactile contacts almost completely or given ample experience of such intimate relations—and by so much his initial orientation to the world of people is established. He begins to be sociable through his first tactual relations and learns to use whatever sensory modality he is permitted to exercise.

We have, until recently, considered the early life experience of the child as of little significance, believing that only when he begins to understand and to use language does his development as a personality start. But we are discovering that these first two or three years of life may be coercive in shaping his personality and patterning his human potentialities. We owe to Sigmund Freud our recognition that the human personality is not innate or given at birth but develops in and through the experiences of being cared for, reared and educated, especially in the early years of life when potentialities are being evoked and shaped by parental requirements.

Premature regularization of eating and eliminating before the child has had capacity to function freely as a young mammal may create tensions in the digestive tract that can become persistent and compromise adult functioning and personality development. We must remember that in these early days the child needs to feel confidence in the world, to be able to trust people, if he is to develop as a person who can cope with his life tasks effectively. He also needs to feel comfortable in his own skin, free to function as an organism before he starts the arduous training to become a personality.

If emphasis upon these familiar, homely practices of child care and rearing appears to lack significance for our theme, we should remember that this is the first in a series of basic transformations the young mammalian organism must undergo to become a human personality capable of living in a symbolic cultural world and participating in his social order. These practices shape his human nature and exploit his human potentialities for good and for ill; they may constrict, or they may free, his capacities for organic functioning and for seeking the fulfillments that make human living rich and satisfying.

The control of eating and eliminating has as its purpose freeing the child, at least partially, from the coercion of his own organic needs so that he will become responsive to the established patterns and practices of his group life. He transforms his biological hunger into appetite for the kinds of foods to be eaten at the intervals set by his family, and he transforms his elimination into cleanliness, sanitation, modesty, and often shame. And he learns to sleep according to the patterns of his group. Thus his individualized organic needs and functional requirements become more or less conventionally patterned and governed by the external world, not wholly governed by his own organic requirements.

Here we see how the basic human organism, with its mammalian functions shared by all peoples, is shaped according to what each group believes in and expects the child to become. Only an organism of truly amazing flexibility and potentialities could respond to the varied patterns imposed on the young child by differing cultural groups. Yet this functional patterning is only one of the long series of enforced transformations the child must undergo.

The World of Symbols and Significance

Perhaps the most dramatic of the human transformations is that whereby the child's breathing and infantile vocalizations are patterned into articulated speech. Each child masters the linguistic patterns of his group, even though in some cultures these appear to be exceedingly complicated and difficult for outsiders to learn. At birth almost every baby vocalizes the full range of possible sounds but gradually learns to hear and then to use only those to which he is exposed. Again we see how his human potentialities are selectively employed and given a patterned use and expression by each cultural group.

Children, unless handicapped, learn first to recognize the language of adults and then to speak themselves. As they learn words or names of things, animals and persons, they also learn the definitions and meaning of these things, so that gradually they become oriented to verbal symbols and the meanings defined for each of them. In this way they learn to live in a symbolic cultural world of meanings and significance, as defined by language chiefly, transforming the geographical world of events into the cultural world of their traditions as they become progressively responsive to verbal symbols.

This human capacity for speech and for recognizing and using symbols, especially verbal symbols, is one of man's unique potentialities that each group has exploited for its own purposes, teaching its children to perceive the world around them as they have selectively recognized it and accorded it symbolic significance. Each group has its own religion, philosophy, folklore and art which express its basic concepts and its numerous assumptions about nature and man and continually reaffirm those meanings.

Impulses and Inviolabilities

The child also learns to transform his naive impulsive behavior into the approved pattern of conduct required for living in his group. This takes place in the endless stream of "don'ts" he hears: don't touch, take, hit, bite; don't look; don't enter; and sometimes don't think or imagine what is forbidden. Each culture has established a set of inviolabilities (what cannot be touched or taken or approached) for things, animals, persons and places. We call these inviolabilities private property and the integrity of the person which the child is expected to recognize and respect in all his activities.

If we reflect a bit, we will see that these inviolabilities require the child to tolerate exposure to often highly attractive things and provocative persons and inviting places, but to refrain from touching or taking or entering. Even more significant, the child is expected to refrain from hitting, striking or biting when emotionally provoked, lessons which are exceedingly difficult to master. Yet without these inviolabilities, these learned patterns of avoidance, a social order would be impossible, and no one could enjoy his own property and feel safe from attack or coercion. These inviolabilities are basic human inventions since they require all members of a group to respect and to guard the property and person of all others, as distinguished from the animal patterns of each organism guarding only its own food, lair, territory, mate and offspring, except for gregarious organisms and social insects which have a social or group life.

The variety of the inviolabilities found in the different cultures of the world is large since each group has selected what it will accord such protection and what it will allow to be used, taken or invaded by all. Thus, sexual relations are regulated according to different codes of prescribed conduct and inviolability.

Each culture inculcates these prescribed lessons of obeying the inviolabilities in its own way. Many do so with patient understanding of how long a child takes to learn, while others, like our own, often treat the erring child as a criminal and inflict sometimes harsh and brutal punishment when he impulsively acts to violate the prohibitions respecting property or personal integrity.

In this context, we should emphasize that the child learns whatever the established customs and practices require or permit, however difficult and sometimes bizarre they may seem to an outsider. This variety of living patterns confirms the view that human potentialities are capable of being utilized in many different ways by different cultural groups. But we must recognize that no matter how conscientiously parents try to teach a child the orthodox group beliefs and patterns of conduct, each parent, with his individual background of family and personal experiences, his or her own personality and feelings toward the subject of these lessons and toward the child being instructed, will give the child an unavoidably biased, warped and often distorted version of the official culture.

Becoming "Individual" Within a Culture

Moreover, what the child receives is always altered by what he hears or sees and how he feels about that subject and especially toward the parent (or teacher) who is instructing him. Thus, each child learns an idiomatic version of the official culture, a version that is always a variation from the official teaching and always infused by feelings, to a greater or less extent, of guilt, anxiety, shame and resentment.

It is characteristic of the human being, an expression of his human potentialities, to learn in his own individualized way and to conform to group requirements "with a difference," sometimes so deviant that he is considered criminal or insane. Each culture tolerates deviations, large and small, to a different degree, often exacting a high degree of conformity, at least in overt performance, and permitting little or no individuality of expression. Indeed, a culture like our own may favor individualism but consider *individuality* a threat to social order and a deplorable lapse of human nature, as an undesirable expression of human potentialities. At the same time, we continually express our desire to develop the individual in our homes and schools while taking all possible measures to prevent or block the development of individuality.

Perhaps no differences among cultures are more striking than those exhibited by individuals and groups who are emotionally aroused or provoked. Here we see one of our human potentialities, the mammalian capacity to mobilize the whole organism for flight or fight, being selectively utilized, regulated and patterned. Not only do cultures differ in what emotional reactions they try to suppress, but also in what kinds of emotions each individual is expected to exhibit on different occasions. Thus we find a gamut of responsiveness ranging from quick, overt reactions of often violent character in one culture to indifference to the same kind of provocation in another. For each special occasion, there is an appropriate form of emotional or affective response so that one culture exhibits continual quarrelsome, antagonistic relations while another deprecates and largely eliminates overt hostility, with little or no overt aggression. Some peoples express grief in violent behavior while others are subdued and passive.

One culture may foster a high degree of social responsibility and group participation by all of its members, while another permits and encourages aggressive competition and hostility among its members so that it is indeed remarkable that the group life continues.

Each group has defined what the male and the female may, can, and must do and not do, not only in relation to each other, but in all the varied activities of living so that there are well understood roles for all male and female performances. Each boy and girl must learn to assume the roles and to perform what is required, although the prescription for these roles may not be wholly congruous with or appropriate to an individual male or female.

Each culture has its own design for living and social order, with its own traditional beliefs and expectations, its rituals and ceremonies, its prescribed roles and relationships, with its religious, legal, economic and political institutions and practices and its social, family and aesthetic patterns.

If we think of a culture as a configuration of these recurrent patterns and regularities exhibited by members of a group, we may then consider the individual personalities as the way each individual in that group has learned the prescribed patterns and permitted activities and relations in his or her own idiosyncratic way. Culture is a statistical concept, like the gas laws in physics, while personality is a clinical concept.

Culture: Opportunities as Well as Limitations

While we often regard cultural patterns as restrictive and compelling, regulating our organic functions and limiting our impulsive behavior, we should not forget that each culture offers its members a variety of opportunities for fulfillment of their organic needs and enjoyment of living, individually and as members of both small and large groups. Indeed, we might say that the culture is a design for living in which the nonrational, organic needs and capacities of people are rationalized and given opportunities for expression and fulfillment, within the framework of their social order.

We should also remember that each culture, through its art, music, dance, drama and folklore, provides for the enriching of human experience, making available many occasions for aesthetic enjoyment, for play and what we call recreation and amusement. We may think of early man as creating a cultural world for human living because he became bored and satiated with the sheer organic activities of eating, sleeping and copulating, seeking ways of giving human existence more tension and meaning and making living more satisfying by purposeful striving.

Accordingly, we may view the expression of human potentialities as being evoked, both by necessity and by the opportunities which man, with his creative imagination, has imposed on nature, according to his varied aspirations. Moreover, we should never forget that there may be human potentialities awaiting release and expression when we discover how to evoke them, especially by the care, nurture and education of children and youth. Looking back over the long and slow development of man and his cultures, we can see what man has attained and begin to look forward to a future in which he may further develop as a personality.

Thus we gain a larger conception of human potentialities when we realize how each human being is capable of developing as a personality in this great range of cultures, finding in each opportunities for pursuing whatever goals he has learned to cherish in his life career, exercising some of his human potentialities, and accepting the necessity for repressing others as prescribed by the traditions of his culture and as appropriate to its conception of human nature.

Accordingly, when we make statements about human nature and human potentialities, we should be aware of the temptation to generalize on the basis of our own limited experience of Western European culture with its peculiar orientation and historic patterns.

The Clinical Approach to Personality

The study and treatment of disturbed personalities is revealing some of our human potentialities in a new light. As contrasted with the long accepted belief that man is a rational animal, we are discovering that man is basically an organism subject continually to desires and impulses arising from his organic functioning and also to emotional reactions of greater or less magnitude provoked by his encounters with the world and especially with other persons.

A recognition of these impulses and emotional reactions and especially of chronic affective responses is giving a new understanding of human conduct and relations and is providing new insights into the vagaries of human personality. The earlier belief in a rational human nature, which often was deplorably misled or tempted or, for various reasons, was unable to maintain a rational stance, is now being revised as we realize that rational conduct and self-disciplined activities are recent developments and then only partially operative.

New Insights About the Irrational

Rationality, it seems clear, is a function of the culture in which an individual lives and is judged, since reason and reasonable beliefs and conduct differ widely from culture to culture. Moreover, rationality is that which is sought but never fully mastered, even by the most highly disciplined members of our urban cultures. Yet instead of deploring this and believing that we are lost because of the recognition of man's irrationality, we should rather be proud that man, in the relatively short span of human evolution, has been able to achieve so much of intelligent conduct and of understanding of nature and his own human nature. Moreover, we must remember that almost every advance in man's intellectual development, every new idea and practice, has been regarded as irrational and absurd according to the then standards of rationality. Thus, the greatest resource of man is his imagination that transcends his accepted reason, his cherished beliefs and expectations, and creates new criteria of rationality, as we have seen in the development of physics since 1900.

The emphasis today is on the imperative necessity for realizing how much human behavior, in all aspects and areas, arises from impulses, feelings, desires and beliefs of which the individual is only rarely aware and over which he can exercise little control so long as these are not recognized. To put the situation colloquially, we may say that we are at the mercy of our forgotten childhood as long as it is forgotten. The early experiences of infancy and childhood, when basic learning and enculturation take place, before language is learned, establish patterns of perception, of feeling and thinking, and of relating to the world and especially to persons, which become more or less coercive over all subsequent learning and conduct. Freedom from these coercive and "unconscious" patterns can be attained, but usually only by a prolonged process of unlearning.

Those concerned with the treatment of disordered personalities operate with a conception of human nature as irrational, emotion dominated, subject to overwhelming impulses, and driven by the "unconscious" to all manner of antisocial and self-defeating behavior. Some assert that if man exhibits any virtuous and socially desirable conduct, it is a reaction formation. He is generous only as a compensation for his innate selfishness; he is kind and considerate of others only as a compensation for his aggressive hostility and exhibits love only because of his dependency.

The foregoing is probably true for the population of neurotics and psychopathic personalities studied and treated by psychotherapists who have then extrapolated these clinical findings to formulate their conception of human nature. This is equivalent to a statement by a pathologist of the many forms of pathological, diseased states and conditions found in the human organism, from which he infers that the human body is essentially a bundle of pathologies, the locus of diseases untold.

The Importance of Favorable Conditions

We do know, however, that the human organism, given favorable conditions, can grow, develop and mature, and age in ways that reveal a capacity for full functioning, vigorous living, and a prolonged life span. Some also are able to cope with their life tasks with clarity and composure and exhibit a mature and benevolent relation to others. Moreover, the people of some other cultures do not display the kind of neurotic, psychopathological behavior we see so frequently here, while still other cultures exhibit what seem to be even more disorderly and self-defeating personality-character structures.

In this context, we may venture the statement that human potentialities are capable of being used and misused and that the kind of personalities that are developed are the products of each culture and how it rears its children and adolescents. We Western people have long believed that human nature is bad. Our religious teachings have told us that the child is fallen from grace, tainted by original sin, or is innately wicked and sinful, prone to evil. Guided by these teachings, adults have followed the practice of "catch 'em early and treat 'em rough." Thus, parents have been quick to see, in all childish impulses and naive behavior, evidence of perversity and of wilful disobedience, which they have been told they must nip in the bud; they must break his will and compel submissive obedience if the child is to become a law abiding and good citizen.

The evidence from study of disturbed personalities, of many delinquents and criminals, of most sex offenders, alcoholics, drug addicts, and antisocial personalities, indicates that these unhappy individuals have suffered from a variety of parental mistreatment, neglect and abuse, and have been heavily burdened with anxieties, guilt, shame, and resentful hostility. It is as if we Western people have been guided by a conception of human nature which has, through child rearing and education, evoked our human potentialities only to fulfill these malign beliefs and expectations about human nature. People in some other cultures believe in a beneficent human nature and treat the child accordingly.

We have been primarily concerned with children's failures and defects, emphasizing their deficiencies and shortcomings and their frequent misconduct, and by so much we neglect or ignore their potentialities. Indeed, we often stunt their development by our continual fault finding and punitive treatment, forgetting that much of what we condemn is not intentional misbehavior or wickedness, but often the careless, impulsive activity of children who can only slowly learn to meet our social requirements.

What makes this situation an ironic tragedy is that parents and teachers are guided by traditional beliefs and long accepted practices in their dealings with children, while earnestly desiring to do the best they can for the child. They strive to "make" the child good on the assumption that only harsh discipline, often brutal punishment, and withholding of love will overcome his evil tendencies. But apparently it is just these beliefs about human nature and these methods of child rearing and training that produce the antisocial and self-defeating behavior they so earnestly want to avoid. Parents continually tell the child that he is bad, worthless, wicked and sinful and use similar terms that give the child an image of the self that is incongruous with, if not obstructive to, the kind of conduct they are seeking to establish.

We are learning that many physical illnesses and dysfunctions are attempts by the organism to protect itself and maintain its integrity in the face of infections, injuries and deprivations. Likewise, we are beginning to realize that personality disorders, neuroses and possibly psychoses are similarly attempts by the personality to defend itself, to guard its integrity against coercions, deprivations, invasions of its privacy, and the often unbearable pain and emotional conflicts inflicted upon it. In these varied personality disorders, we find a display of human potentialities that is often antisocial and self-defeating but amazing in capacity for coping with otherwise overwhelming experiences.

Repressive Child Training as "Psychological Bleeding"

Many protest that generations of parents cannot be wrong and that traditional practices of child rearing are the only way to develop a good character and to eradicate evil propensities. Yet up to a hundred years ago, physicians were persuaded of the humoral doctrine of disease—that all disease was caused by an excess of one of the four humors in the blood, so that to treat a patient the physician should bleed him. How many patients were helped and how many were killed by this treatment we cannot say, but today we recognize that the blood provides the major defenses against infections and supplies each part of the total organism with the oxygen, the nutrition, and the various substances, like antibodies and hormones, necessary for its functional integrity. Our traditional methods of child training may be considered as a form of "psychological bleeding," depriving the child of his self-confidence, his trust in the world, his ability to live with himself and cope with his life tasks. Just as modern medicine gave up some of its former beliefs and practices, so parents and teachers should recognize that much of what we have believed about human nature and what we have done to and for the child was based on erroneous assumptions and a lack of understanding of what personality development involves.

Despite the popularization of Freud's teachings about personality development and expression, few realize that he has given the most explicit support for the ancient injunction to "love little children." He has also shown, in contrast, that the traditional modes of expressing and withholding parental love ("it hurts me more than it does you") create disturbed, stunted and aberrant personalities. We face the exigent question today, how can we love and rear children wisely and beneficently?

Whatever other conclusions may be drawn from psychopathology and psychotherapy, it seems clear that we must critically examine our traditional beliefs about human nature and recognize that human potentialities may be evoked and utilized in a variety of ways, some of which are clearly invalid today and undesirable but capable of being changed if we will recognize that we have new knowledge and understanding about human nature and personality development. Moreover, we can expect increasingly penetrating insights not only from clinical studies but from observation of the ongoing process of personality development in living children as they grow up from infancy on.

The Developmental Approach to Potentiality

The intensive study of human growth and development is fairly recent. Not long ago little was known about the growth of the human child from a fertilized egg. Indeed, for centuries it was believed that the child began as a minute man, the *homunculus,* who grew larger during gestation and then was born when he reached a certain size. Embryology has shown that, beginning with the fertilized egg, there is a rapid multiplication of cells which then begin to differentiate to form the primitive embryo. This human embryo is similar to other mammalian embryos and only slowly begins to assume the human form, replacing many primitive parts with new, human organs and functional capacities.

New Understanding of Gestation and Its Vicissitudes

Perhaps most astonishing has been the discovery that before birth the human fetus rehearses many of the functioning processes it will exhibit at birth. Thus, the fetus urinates and probably defecates and hence its digestive tract must be active. It practices the grasping reflex and other reflexes. It begins the rhythmic muscular movements for breathing and quite early develops and circulates its own blood, deriving nutrition and other substances, like antibodies, from the mother through the placenta. An infant has had an astonishingly long developmental history within the nine months of gestation.

Accordingly, when the human infant is born, he arrives with the wisdom of the body derived from his mammalian and premammalian ancestry, capable of functioning in atmosphere, after growing and living for nine months in a liquid environment that is like the ancient seas in which ages ago the first eggs developed into living organisms.

For years there has been a controversy between the geneticists and the environmentalists, one asserting that human development is determined by heredity and the other protesting that it is environment that shapes the individual. Today we recognize that heredity and environment are both operating in human growth and development. But both of these contending sides have ignored the nine months of gestation during which the organism is subject to a variety of insults, traumas, deprivations and infections as well as continually resonating to the health, physiological imbalances and dysfunctions, hormonal secretions, and heartbeats of the mother. A recognition of the immense significance of gestation and the many vicissitudes of embryological and fetal development calls for a critical evaluation of many of our assumptions about human nature and human potentialities, especially the assumption that the defects and impairments in the infant are due to heredity. It is not improbable that many of the assumed genetic defects that appear as handicaps, deficiencies (mental deficiency), malformations and the like, will be shown to be products of disturbances in gestation, especially of deprivations of needed substances during critical stages of embryological growth. Moreover, some acknowledged hereditary defects may be discovered early in life so that corrective treatment will prevent their development into lifelong defects.

An example of this is the discovery that measles during the first three months of gestation usually produces deformed, deficient infants. Another discovery is that newborn infants may suffer from a hereditary defect in metabolic capacities (phenylketonurea). This discovery has made it possible to control the food intake of such afflicted infants until they have reached a stage when that metabolic disorder will not impair their early mental development. Not beyond possibility is that many supposedly inherited mental deficiencies can be prevented by careful management and more adequate nutrition of pregnant women so that the developing embryo and fetus is not injured or deprived of what is essential to its normal development and adequate functioning. Many of the malfunctions and physical defects in newborn infants are now known to occur at a definite time in their prenatal development when it is believed that some deprivation or untoward event interfered with normal development.

This does not deny that individual parents may give a genetic constitution to their infants which, if not compensated during gestation or in early infant development, will give rise to the familiar kinds of physical and mental deficiency and distortion. However, the new understandings have a profound implication for our thinking about human potentialities in that the more we discover about prenatal human development and what is essential to normal development of the infant, the more we can utilize the marvelous potential capacities of the embryo and the fetus and the infant to grow normally if provided with the essential care and prerequisites.

The Broad Highway of Development

Studies of newborns, infants, toddlers and preschool children suggest that there is an orderly sequence of growth and development from conception on, like a broad highway along which each child must travel. But equally significant is that each child with his unique heredity, his individual nutrition and nurture and life experiences, will move along that highway at his or her own rate of progress, attaining the size, shape, functional capacities, and abilities that are uniquely his or her own. This applies also to adolescent growth and development.

Most studies of child growth and development have aimed at establishing age norms for specific aspects of children's development. Thus, in the usual textbook we find a chapter on norms of motor development, sensory development, language development, mental development, social development, personality development, etc., which reports the findings on specific samples of children who have been measured for one variable that is then correlated with chronological age. Reading these reports, one would never realize that all these processes are operating at the same time in every child, who rarely, if ever, conforms to the central tendencies reported as norms. Few studies have focused on individual, identified children and on the way they grow "all of a piece," since the preferred practice is to use the child as a laboratory subject to provide data for study of a professional problem in psychology, sociology, anatomy, physiology and the like. Accordingly, the usual studies of child development have often obscured the dynamic processes by their focus on variables, static norms, and statistical correlations. It is what is taking place in the intact functioning child that is significant; this cannot be found in frequency distributions, in each of which a child may occupy a wide range of rank orders because he has been fractionated into a series of discrete variables. The clue to his makeup and functioning is how he attempts to encompass these divergencies and incongruities within his growing organism and emerging personality.

Along this developmental path there are innumerable obstacles, hazards, blocks and impediments, and also a series of acute transitions with which the child must cope in order to grow up. We may think of this as a maturational process, of relinquishing, giving up, abandoning and rejecting what the child has often laboriously achieved in order that he may replace what he learned with a new pattern, a new ability, a new way of perceiving the world and coping with the transitions from fetus to newborn to infancy, from infancy to toddler, from toddler to preschool.

For example, a baby, after sucking at the breast or bottle for months, gives up that mode of eating and begins to bite, chew, and feed himself. He also learns to creep and crawl, but sooner or later struggles to stand up and learn to walk so that he can explore the world. Maturation, in this sense of replacing earlier patterns, should be a lifelong process if the individual is to keep alive and be capable of coping with his life tasks as he grows up and ages.

Need for Support in Transitions

One of the greatest potentialities of the human organism is its prolonged infancy. Not only does the human child have a long period of gestation in which his mammalian organism and especially the central nervous system develops, but he remains juvenile for many years, capable of prolonged learning, longer than any other species. Moreover, the human organism also has a prolonged adolescence, another uniquely human characteristic, during which he is transformed from a juvenile to an adult organism and begins his life career as an adult person. In these adolescent years, some of the major learnings and unlearnings take place in terms of group living, marriage and achievement. Because we are so familiar with infants, children and adolescents, we fail to recognize the amazing potentialities of the human being who can, in the space of a few years, encompass such almost incredible transformations and learn so much. Also, we fail to realize how many hazards and obstacles the child must cope with in growing up, not only those to which as a living or ganism he is exposed, but those which as a personality he faces in the process of being enculturated and socialized by adults.

With his potentialities for growth and maturation and prolonged learning, the child will strive to develop and to meet these transitions according to his unique individuality. But often he is unable to do so because he is blocked by adults or is denied the reassurance, the encouragement, the assistance he urgently needs to master these often difficult transitions. He especially needs to have help in giving up what has been comforting and secure, and encouragement in facing the new tasks and opportunities that await his developing strength, skills and understanding. Sometimes he is pushed by parents and teachers before he is ready, sometimes is prevented from doing what he is eager and competent to do; both actions may be detrimental to his orderly development and maturation.

This almost obsessive urge to make a child into whatever the adult believes he should become operates as a continual block to the development of human potentialities. If parents and also teachers have a conception of human nature and of human potentialities which denies what seem to be the essential strengths of the human child, focusing their attention and spending their major efforts upon mistakes, deficiencies and inability or reluctance immediately to meet their requirements, they will of necessity fail to recognize and utilize the child's strengths, his own aspirations and feelings, his personalized way of attaining maturity according to individualized capacities and limitations.

So many of the child's potentialities for growth and learning are wasted in his effort to defend his integrity as an individualized organism-personality. He often dissipates his energies and abilities in rebelling against parental pressures and blocks, in the process frequently developing a lifelong resentment against authority from which his teachers and employers will suffer and for which the individual himself will pay a heavy price.

Potential Is Lost in Many Ways

As we have seen in the preceding section, human development can be stunted, warped, and often tragically distorted, so that the individual fails to attain what he might become and his society is deprived of his potential contributions. This we see with especial clarity in adolescence when many boys and girls exhibit delinquency, sex offenses, and rebellious, often violent, conflicts with adults. In the period from 14 to 19 years of age, there is a sharp rise in the death rate, especially of males, and there is also a sudden rise in the first commitments to mental hospitals, both indicating that the demands and requirements of living in the second decade are too heavy for all too many boys and girls. The frequency of physical defects and impairments revealed by the examination of youth in the first and second World Wars is evidence of our continuing neglect to provide adequate nutrition and health care for children and adolescents and, when necessary, to make available medical and surgical treatment.

For every adolescent who dies prematurely or becomes mentally ill, there are many others who survive to become adults burdened with various physical defects and impairments, physiological dysfunctions, and incipient diseases that become progressively more serious, handicapping adult living during the years when the individuals should be at the peak of their vitality and ready for vigorous, full functioning. Many adults also are seriously troubled and unhappy personalities with a heavy load of anxiety and guilt, torn by resentful hostility which they must struggle to repress lest they erupt into overt misconduct or impulsive reactions. The widespread mental disorders in adult life that become more frequent and serious with age indicate that in the rearing and education of children and adolescents in our culture, we have failed to provide adequately for the exercise of their human potentialities in socially acceptable and humanly fulfilling patterns and relationships.

The "causes" of mental disorders are in sharp dispute between those who view them as psychogenic—that is, derived from life experiences—and those who see them as produced by deviant, aberrant metabolic and other physiological processes, including self-generated toxins, or sometimes by genetic defects ("bad genes"). These two approaches are not necessarily contradictory since individuals with various physiological discrepancies and incongruities ("physiological clumsiness," as R. G. Hoskins once named them) may be peculiarly susceptible to and less capable of coping with the many conflicting adverse conditions, the mistreatment and neglect, to which they may be exposed in childhood and adolescence.

Thus we may say that studies of human growth, development and aging reveal a wide array of stunted and disordered personalities as well as many forms of physical impairments and dysfunctions at all ages, but increasingly frequent and serious in later years of life. We may, as many are persuaded, interpret this melancholy record as evidence for a pessimistic conception of human nature and an assessment of human potentialities as essentially defective, prone to evil or neurosis, and inescapably condemned to repeat these patterns endlessly in every generation. Or we may regard the record as an indication of how we misuse and waste our human potentialities, partly because of our traditional beliefs about human nature and expectations and our long accepted practices of child rearing and education but principally because until recently we have had no dependable knowledge of man or any adequate realization of his many potentialities for good or ill.

Ours the Task of Creating the Best Conditions

Our choice is *not* between a theological conception of an evil human nature, now reinforced by the writings of many psychoanalysts (who see man doomed to endless self-defeat and conflict and believe that culture is man's enemy), and a Rousseauistic concept of a pure and wholly good human nature. Rather, we may assert that human nature is what each cultural group makes of man's potentialities guided by what it believes about, expects of, and does to and for children and youth. Likewise, we may escape the "predestination" of some geneticists or the often easy optimism of many environmentalists by recognizing the growth in knowledge of human development, especially of mental or intellectual development, and what could be done to eliminate the many obstacles and threats to the development and exercise of intelligence. Probably the majority of individuals are functioning far below their capacities, physical and mental and creative.

Reliance upon standardized mental tests may be misleading because they are predicated on the assumption that chronological age groups are homogeneous: that children of a given chronological age have developed at the same rate and have had approximately equal opportunities to master the knowledge and skills being tested. As we noted earlier, children grow and develop at different rates and are a bundle of maturities, especially in adolescence. Also, they differ very widely in their opportunities to learn, especially in their first early learning experiences, which recent studies have shown to be crucial in later learning. Furthermore, knowledge of differences in ethnic-cultural backgrounds reveals how often one cultural group may highly prize intellectual achievement and encourage a child while another has no such respect or desire for intellectual mastery and provides in its families little or no support for such learning.

Each professional group operates with its own conception of human nature and of human potentialities, using different criteria for evaluating individuals, each attributing the differences to its own preferred assumptions and convictions. In the family, in the Sunday school and church, in the schools, the youth agencies, the recreational organizations, the clinics and hospitals, the custodial institutions, the child guidance clinics, and the offices of various professional workers, children are met by widely different expectations and treatments. If they suffer, as Erikson has said, from acute problems of identity, go through an often severe crisis of identity diffusion, and exhibit various forms of antisocial behavior, "the fault, dear Brutus," lies not in their human nature or in malign human potentialities, but largely in what our culture does and fails to do to and for the emerging personality of its future citizens.

We have no one agency or institution concerned with the child and adolescent as an organism-personality through which we can focus the growing understanding of human development and our professional services into a coherent plan and program for conserving human resources and evoking the human potentialities awaiting development. The schools could become such an agency, but their traditional preoccupation with formal, intellectual education and their reluctance to accept new understanding and use new professional knowledge and skills effectively block this possibility at present. In the future, the schools could become our chief agency for human conservation, enlisting the relevant professional knowledge and skills and articulating the available facilities and equipment for this great task. Acceptance of this responsibility by the schools began some years ago with the enlargement of the school's services to children beyond formal academic education. As we are realizing, a child often cannot learn nor can the school effectively teach when the child suffers from unnecessary deprivations and from the many remediable and, more importantly, the many preventable defects, handicaps and impairments that interfere with his development and learning.

Learning as Evocation of Human Potentialities

The potentialities of man that distinguish him from other organisms are all latent at birth, awaiting development and expression. Many of these become functional and operational only by what we call learning.

Learning Signals and Signs

We may find a useful perspective on human learning by recalling, as Norbert Wiener remarked some years ago, that the world may be viewed as a myriad of "To Whom It May Concern" messages. Through the millions of years of organic evolution, each species has developed a concern for those biological signals which are essential to its functional activities and its survival. Each is sensitive to some portions of the spectrum of physical, chemical and biological signals, according to its inherited capacities for vision, hearing, smelling, tasting, and tactile reception while ignoring all other signals for which it has no concern. Each continually scans the world for relevant signals, especially those coming from other organisms, indicating enemies, food or a mate.

Most species also learn to recognize a signal for which they may have no initial concern but which occurs concomitantly with a biologically important signal, as we recognize in the process of conditioning to various surrogates. Learning to recognize these surrogates, which we may call signs, enlarges the repertory of an organism's behavior, alerting it to possibilities and dangers in the environment and thereby enabling it to develop strategies for coping with its world.

All organisms also receive physiological signals from their own organic functional processes which, like hunger, thirst, and sexual readiness, alert them to seek the biological signals that guide their overt behavior and bring functional fulfillments.

Man, as a mammalian organism, has an inborn capacity for receiving and responding to a variety of signals from the environment and from his own internal bodily functions. Man also can and does learn to recognize a wide variety of signs as surrogates for biological signals. But the human child starts with a more flexible, plastic sensory apparatus and the largest uncommitted portion of the nervous system, which enables him to enlarge his awareness and reception of signals and signs, as he learns through art and science, uniquely to recognize and to respond to symbols. In this context, symbols may be viewed as patterns or configurations of signal-signs which are perceived as "figures on a ground" of nature or as man-made creations which children learn to recognize as meaningful and evocative of learned patterns of conduct and of feelings.

Through exercise of his capacity to learn more than the elementary stimulus-response behavior, man comes to identify and respond to symbols, recognizing them and projecting upon, or imputing to, those symbols the meanings they carry in his culture. Thus, in symbolic behavior the individual is concerned with and responds to the meaning, not the natural stimulus, of a symbol.

Signals and most signs are given off by concrete situations and specific events and therefore do not communicate when divorced from such tangible objects. But symbols must be learned and accepted not as surrogates but as uniquely human creations for use in speech, reflective thinking, nonverbal communications, and ordering and interpreting experience in human terms.

Thus the young child, starting with a capacity for unpatterned hearing and vocalization, gradually learns to tune his hearing to the patterned sound of his family's language and to pattern his vocalization for verbal communication. He usually learns to understand language before he himself can speak and then, as he learns to understand and to speak, is progressively inducted into the symbolic world of his culture. In this indoctrination, he endlessly rehearses the patterned sounds, learning that every thing, animal, situation and event and every person of which his people are aware has a name and a definition. Thus he gradually learns to respond to the meaning of what he hears or later reads and masters the syntactic order of language as he develops his capacity for communicating in formal patterns of speech.

Concurrently the child learns to perceive the world around him as it is symbolically interpreted and dealt with by his family and others.

Accordingly, we may say that the most important and possibly the least understood human activity is the symbolic process. Until recently, we have focused our studies of learning chiefly upon motor patterns, memorization of nonsense syllables, and the growth of vocabulary, with little recognition of words as symbols. We have sought the fundamental laws of learning by studies chiefly on animal behavior, where we can manipulate signals and signs and, by imposing strains, pain and hunger, can compel organisms to learn to cope with operational tasks.

Since the human child must develop as a personality who can transform nature and his own organism for symbolic living, educational progress has been hampered by a lack of adequate understanding of the learning of symbols and of the cognitive process.

What Is Knowledge and Knowing?

For centuries we have been perplexed by the problem of knowledge —the ancient controversies over epistemology, including the familiar contrast between "appearance" and "reality," the nominalist-realist disputes, and the attempts to deal with knowledge as a mysterious substance that can be acquired and transmitted.

In their book, *Knowing and the Known,*[1] John Dewey and Arthur F. Bentley proposed that we abandon this long accepted assumption of knowledge as a substance and replace it with a conception of *knowing* as a transactional process whereby the knower relates cognitively to the known or the to-be-known. This proposal has not been adequately recognized in educational studies, probably because we are so preoccupied with the classic problems of learning and so intent upon imparting knowledge to students. Our traditional assumptions make it difficult for us to think of, let alone study, dynamic processes that cannot be formulated in terms of stimulus and response and conditioning.

Knowing occurs as a transactional process in which the knower imputes to, or projects upon, those situations and events to which he is responsive, the symbolic meaning he has learned to invest in them. Thus knowing operates as a circular, reciprocal process; man may be said to create the symbolic world to which he is responsive. Apparently only man is capable of the creative imagination that has given rise to his symbolic cultural worlds and which enables the members of such worlds to recognize and deal with the culturally sanctioned meanings of events.

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[1] John Dewey and Arthur F. Bentley. *Knowing and the Known.* Boston: Beacon Press, 1949.

Of especial relevance to our present theme, the concept of *knowing* offers a promising approach to the basic problems of learning by each individual. The child, being a unique, highly individualized organism-personality, can perceive the world and recognize its symbolic significance only as he can relate cognitively to that symbolic world of meanings in his own personal ways. Here learning theory can be enlarged by accepting the personality process by which each individual creates and maintains his private world, his life space, his idioverse while participating in the public world.

Our thinking about learning has been shaped largely by experimental studies, involving rewards and punishments or reinforcement, so that we have neglected self-rewarding learning, learning by and through identification with others, learning by discovery and, most importantly, *learning to learn.* Moreover, our preoccupation with teaching specific content and using standardized methods has obscured the variety of "cognitive styles," that is, the different ways by which individual children learn and know about the world. Recent studies are showing that each child has his own cognitive style—his characteristic awareness and lack of awareness, his preferred sensory orientation, his often highly selective perception and capacity for *knowing*—that enables him to cope with the world effectively only through the exercise of these individualized capacities.

Differences in cognitive style may prevent a child from learning when faced with teaching and an organized content that is not consonant with his way of knowing. Thus some children may have great difficulty in learning to read or to perform arithmetic operations when compelled to work with written symbols alone; they seem to need concrete, three-dimensional objects such as miniature life toys which will help them gain the meaning of written symbols through visual and motor experiences.

The crucial problem in human learning is that of concept formation and patterned perception, whereby a child learns to transform the actual world of nature into a symbolic world. The learning of concepts and the mastering of symbols are essential to participation in the social order of the individual's culture.

Relatively little study has been made of concept formation and symbolic learning as these are mediated by experience with other personalities. Much of our learning theory comes from experiments which attempt rigorously to be objective, to rule out the impact of the experimenter as a person upon his subjects, and usually to ignore the effective coloring or distortion aroused by the experimental manipulation. This rejection of the significance in learning of interpersonal relations, and especially of emotions and feelings, becomes serious in the light of the cumulative clinical records that show how often an individual in childhood or adolescence learns from one single event or traumatic experience what persists without repetition for the rest of his life. Moreover, the clinical records demonstrate that the most effective learning is often a product of the relation of a child to another person whom he wishes to emulate or sometimes to avoid.

Learning as a Dynamic Process, as Learning To Learn

When we shift the emphasis from learning of facts, memorizing of specific knowledge, and training in skills to the study of learning as a dynamic process, we begin to realize that the basic task facing the child is *learning to learn*, that is, learning so that he can, without further teaching, continue to learn to cope with new tasks and problems. Having learned to learn, a child under favorable conditions will exhibit continuing self-rewarding learning in which he can discover himself. A crucial question, therefore, is not how to develop spontaneous learning and creativity but rather how to discover what blocks and curbs and discourages individuality in learning.

The current interest in creativity is a recognition of our urgent need for imaginative thinking in dealing with the immense challenges we face in almost all areas of human living. It is being shown that we can be creative only as we are freed from our familiar perceptions and assumptions and can view events and situations in a new perspective. For such creative thinking, we need not the familiar prescription of a "liberal education" but rather a *liberating* education that will emancipate us from traditional beliefs and exceptions so that we can learn anew. As we have in science, we must develop in all our familiar, long accepted approaches to living, the capacity for learning to learn.

Just as each culture has selectively recognized some human potentialities and has sometimes rigidly patterned their expression, so in child rearing and education we have attempted to normalize the child, to make him see, think and reflect according to standardized patterns for each age group, thereby denying and often stunting his individuality. We attempt to ignore the child's affectivity, expecting him to be prematurely dispassionate and objective. We often assume that the child can and must learn objectively to perform like a computing machine that has been programmed for a precise task and not to deviate and make mistakes.

The human organism is essentially and primarily a mammalian organism, with viscera and glands as well as a brain, and these cannot be divorced except by methods which do damage to all. Only slowly, as he becomes physiologically better stabilized and less subject to emotional upheavals and strong impulses, can a child be expected to learn to be what we call objective, that is, less subject to emotional bias and distortion. But whatever he does learn will be biased, and sometimes badly warped, by his own individualized perceptions, conceptions and feelings; these can be modified to be less coercive but can never be completely abolished. What we call subjective is individualized perception and evaluation of experience. Objective means the publicly accepted perceptions and evaluations that have been consensually validated but were once the product of individual creative thinking.

While man evolved as an organism continually exposed to the many impacts of nature and had to develop a selective awareness and a patterned perception in order to stabilize the world for his purposive striving, he survived through his capacity for emotional reactions. Only as he has been able to develop feelings and sensibilities could he create a human way of living with pity, compassion and empathy for others, as well as a capacity for aesthetic experience.

To view education as a process of evoking human potentialities, and especially for establishing knowing relations with the world, shifts educational thinking and practice from the transmission or imparting of static knowledge to a more or less passive pupil, a survival of Lockean psychology, to an emphasis on learning as an active process of establishing *knowing* relations with the world. Inevitably this requires a recognition and cultivation of those human potentialities which have been neglected, or often suppressed, in the interest of an intellectualistic conception of learning. We may find supporting evidence for this approach when we recall that long before there was any systematic knowledge of what we call science, man had developed his art, poetry, drama and religion as transactional processes for relating to the world, not purely cognitively but with an infusion of feelings and emotions that gave his experience a vividness and a meaning that he cannot live without.

Two Kinds of Knowing: Analogical and Digital

Throughout life an individual relies upon two basic modes of knowing: the analogical and the digital. The analogical mode operates through images, pictures, diagrams and models, both physical and conceptual, and involves discovering likenesses and similarities, using metaphors and other figures of speech, and relying upon analogues that stimulate or symbolize events. This is the approach in art and poetry and religion where feelings and form are combined in patterns of perception infused with emotions. The digital mode operates by a sequential, step by step process, as in language and arithmetical operations. Digital thinking is expressed in classical logic where one gradually builds up to a conclusion and in analytic studies where a whole is broken down into parts or variables which are studied piece by piece or related to one another. Both these modes are essential and usually complement and supplement each other, as we see in art and also in science today, where the artist or investigator starts with an idea or concept as an analogue which he then proceeds to manipulate digitally, leading to the creation of another analogue, a refined conception or pattern followed by more digital operations. In art and poetry this produces the finished composition or poem and in science results in an equation or diagram, both analogical creations.

The child's early orientation to the world is largely, if not entirely, analogical: he sees wholes and responds to situations without much if any analysis. By this process, he develops his initial conceptualization of the world, exploring, manipulating and trying out every possibility that appeals to him. Gradually, he learns to accept what he is told as the only correct and permissible way of perceiving and knowing the world. In his play, the child relies upon analogical processes, using models of the adult world that he can manipulate concretely. Thus in the first five years of life, he learns by these processes an amazing range of concepts and perceptual patterns as he is inducted into the symbolic cultural world of his parents, which becomes the only world he can recognize and live in. He becomes so thoroughly committed to this cultural world and the use of these analogues that he usually resists any departure from what he has learned to expect and to believe.

When the child enters school, he often faces an abrupt discontinuity in learning; suddenly he is cut off from the manipulation of things and from his analogical learning while he sits at a desk, with paper and pencil, and is expected to develop purely symbolic digital learning, as in the three R's. He is required to learn "bits" and to put them together into meaningful patterns, recognizing small black marks on paper as words which he must interpret with specific meanings that he is told verbally to learn. The lack of concrete, three-dimensional objects to manipulate and to make words meaningful, the absence of analogues to help him to grasp the use of the black marks, presents a difficult task for some children, although others learn easily and quickly to master the new lessons.

Probably the most insidious and subtle barrier to formal learning today is the exposure to what is called a sensory overload—the impact of too many different messages and exposure to too much "noise" beyond an individual's capacity to deal with either adequately. When we recognize that the out-of-school life of many urban children is filled with sensory overloads—in their homes, in their play and, indeed, wherever they are—we may gain some understanding of the frequent blocks to learning and the many forms of disorderly behavior. Often in the classroom and in other school locations, such as lunchrooms and gymnasiums, a child is also subject to sensory overload and accordingly may become too jittery or distracted to be able to focus his attention.

Living under the often adverse conditions of urban dwelling, the potentialities of children, however great, for coping with life may be tested to the limit and even exceeded when they are expected to learn under the conditions so frequently prevailing in our crowded urban schools.

With the breakdown of so many of our traditional concepts and assumptions, the passing of the long accepted ways of living and working and relating to the world, we must call upon our unique human potentialities to enable us to cope with a "time of troubles" and to renew our culture and reorient our social order. Probably the crucial problem we face is how to emancipate ourselves from long accepted and strongly sanctioned beliefs and expectations which are now anachronistic, if not archaic, in the light of the new climate of opinion presently emerging.

Here we face a problem which has been neglected except by the psychotherapists, namely the problem of unlearning, of self-consciously relinquishing and formally rejecting accepted concepts and conventional patterns of perception and of thinking that now govern our learning and our living, so that we can replace these with new concepts and perceptions more appropriate to living today. This is what the advanced sciences like physics are doing with an enormous enlargement of their grasp of the order of events and with provision of new instruments and techniques that are transforming our visible world and revolutionizing all our ways of living and working today.

So long as we insist that children learn so much that is already obsolete to prepare them for a world that no longer exists, we are handicapping human intelligence and by so much are sabotaging our human potentialities. Teaching these prescribed but now obsolete, anachronistic and misleading facts and ways of knowing goes on continuously in the home and the school, thereby cumulatively handicapping the ongoing generation, preventing them from living "at the height of their times," as Ortega y Gasset has phrased it.

The Problem: Learning What Is Relevant and Releasing

Since children must learn basic concepts and assumptions in order to live in a culture, the crucial question is how we can enable them to learn what is relevant and congruous with today's conceptual framework. We are not blocked by the limitation of human potentialities, since man can and has unlearned much of what he painfully developed earlier. The rigidities and resistances in our traditions and more especially in those who inculcate cultural learnings in our children are the blocks to social advance. Children can learn the new concepts if they are made aware of and helped to unlearn or give up the preconceptions and assumptions that are no longer valid so that they can recognize the need to replace them.

If we read the past correctly, man has discovered more of his human potentialities whenever he has developed new conceptions of the universe and its operations and has replaced previously accepted knowledge. New concepts have given rise to higher aspirations and disclosed new opportunities for man to evoke his often unsuspected potentialities. Man is still a young species and his cultures are relatively recent creations, with the probability that if his imagination and courage are not constricted by his loyalty to the past and by inadequate educational methods, facilities and goals, he can go on creating new ways of living in which to seek fulfillment of his uniquely human potentialities.

But we must release human creativity for these great tasks and evoke from children and youth more imaginative thinking and new patterns of performance and achievement. Excellence may be called the goal of education. However, without insights and the ability to go beyond currently accepted standards, excellence will not be sufficient to meet the challenges of the future.

Chapter 2

Developing Potentiality | Creed or Pipe Dream?

Paul Hoover Bowman

IN the preceding chapter, Lawrence K. Frank has stated a basic hypothesis: namely, that *every* child has within him the potentiality of becoming a human being of value to himself and others. He states further that the development of this potentiality will depend upon the culture into which the child is born; the culture will mold this human potential from the earliest experiences, either aiding or thwarting its expression. Thus, motivation exists in every child as a part of his human nature; he does not need to be taught to be curious about the world in which he lives. According to Dr. Frank, the central educational task is not the passing on of accumulated knowledge, but rather it is to master the *process* of learning—to learn how to learn.

What Do We Really Want?

These challenges by Dr. Frank stimulate the imagination. We might call to mind the children that we have helped to new self-discoveries, and we can nod our heads in agreement with a belief in potentialities. We might also think of students we have failed to reach, then question whether they had greater potential. Still, Dr. Frank cites new insights and understandings that are very convincing.

These "new" insights have also a very familiar ring. Some years ago, as Frank points out, Dewey and Bentley[1] put forth their theory of the knowing relationship. More recently, Gardner Murphy[2] has written eloquently that our present discoveries and experiences will likely increase the potentiality of human beings in the future. Herbert Thelen has pointed out that inquiry is man's most natural and most rewarding activity.[8]

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[1] John Dewey and Arthur F. Bentley. *Knowing and the Known*. Boston: Beacon Press, 1949.

[2] Gardner Murphy. *Human Potentialities*. New York: Basic Books, 1958.

Support for Potentiality as Unrealized

There is much support for the belief that man's potential is largely unmeasured and unrealized. Only recently, Lieutenant Colonel John Glenn received the plaudits of the nation as a symbol of another great achievement of man. In his speech before Congress, Glenn was very compelling in his statement that we are really just beginning in our knowledge of space and that new knowledge will come from new experiments to begin almost immediately. Such events have shocked us into appreciating the immensity of the universe. The kind of evidence cited by Dr. Frank must serve to awaken us to the concept that man can learn and change and that the environment in which he lives can be manipulated and controlled. If this is true, then it means that we have in our hands the possibility of shaping the future and of redeeming much of the present.

Yet do we really believe this? We who revere science—do we really believe that we have the capability of shaping the future of persons living among us? If we do possess this powerful weapon, no one would ever suspect that we do. How can we explain the fact that large numbers of children in whom burn the fires of curiosity actually hate to go to school? It is disconcerting to know that 40 percent of American youth leave our public schools before completing the program, even though their chance of success in the work world without a high school diploma is slight. It is all too easy to excuse our failure by saying that these students were not suited to education and could not learn and therefore should drop out. This, of course, is denying our fundamental hypothesis, that all children have potentialities and can learn. Rather we must conclude that we, the society, have failed these young people by not utilizing our knowledge to provide the learning experiences to challenge them.

Further evidence of our failure to realize potential is the not-too-infrequent defensive reaction of some educators themselves. In the face of suggestions or criticism, some of us will stoutly defend existing practices even though the criticism is deserved; others of us will rush headlong into curricular changes to prove that we are up to date; and even more dangerous is the tendency of some to acquiesce to outside pressures without exercising professional evaluation.

Do we really accept the findings of social science about the nature of man? It is obvious that we do not. This is a peculiar phenomenon.

[8] Herbert A. Thelen. *Education and the Human Quest.* New York: Harper and Brothers, 1960.

Compare it if you will with the field of medicine. When the discovery and the successful use of Dr. Salk's vaccine were reported in the public press, there was almost immediate acceptance and acclaim by the majority of the general public. Within a matter of days or weeks, drug firms were busily preparing and shipping the vaccine to all parts of the country.

Fifty Years To Change Practice?

Yet any discovery in the field of social science, no matter how well authenticated, is discounted because it is not well proven or it does not apply to us. In a historical study, Paul Mort of Teachers College, Columbia University, discovered that it takes 50 years for an idea, once established by research, to be accepted and used in the schools. Why must it take so long to put new knowledge to work in such an important area? In the writer's opinion, it is frustrating to be part of a profession that can allow this to happen, that can allow two generations of children to grow up without benefit of knowledge that exists. Unfortunately, the responsibility for this situation is shared by so many that there is no logical scapegoat. There has been a dearth of good research to report; there has been a lack of good communication of research to the practitioners in the field; and there has been on the part of school people, a reluctance to change.

Perhaps we are improving. Perhaps it does not take as long as 50 years now to accept and utilize knowledge; but any delay is too long. This is a time when the world is demanding a more complex, skilled and balanced person, and it is a time when we have more and more leads on how to develop these qualities. We may yet see a serious crisis if education does not increase its effectiveness proportionately.

I have to ask, do we as a nation really want better education? I believe that a nation with the resources of this one usually provides what the people really want. The people of this nation wanted to compete with the Russians in space, and with a lot of money and a lot of effort we did. We wanted universal public education, and we provided it. I believe the public now wants "better" education, and I believe we are now in the process of getting it. With the development of automation during the next 10 to 20 years, we will need fewer people on the assembly line and fewer unskilled laborers. We will need more people with skills, with balanced judgment, and with the ability to put questions to the computers; and this means *better* education.

Suppose we were to take seriously the belief that there exist in our children great untapped human resources. What difference would it make in the way that we parents and teachers deal with our children? In this volume we are straining to see beyond the present scene, and to take an unfettered look at the world of our children 10 or 15 or 20 years hence. What kind of education will they be needing in the world of their adulthood?

To answer this question we will probably have to think in terms of major changes in education. I agree with Thelen that the education we need will not be found by the tinkering approach or by patching up the present system. On the other hand, nothing is to be gained by rushing pell-mell into frantic revisions. A thoughtful examination of goals and alternatives is called for.

In the remainder of this chapter we will examine some general questions to be considered if we take seriously the task of developing potentiality. Later chapters will discuss more in detail the specific tasks that might be undertaken.

What Do We Need To Know About Children?

The first question that invites attention is, how much information and what kind of information must the school have about each child to do an adequate job of developing potentiality?

If we take seriously the task of developing potentiality, we must then know all we can about every child. This must indeed be a creed, not a pipe dream. The average school today gathers relatively little information about its students and often gets it rather haphazardly. We usually do have consistent information on their weight in pounds, their growth in height, the number of times absent or tardy, and what evaluations teachers have placed on their schoolwork. It is not surprising that these choice morsels are kept in accounting books and seldom consulted by teachers until they have to copy them on the monthly or six-weeks "bill."

We Know Much About a Few

Perhaps the present situation is not quite as bleak as we have pictured it. For some students, we have a whole file of valuable and pertinent information. There are psychological tests given individually by trained psychologists who have spent hours trying to understand this one child. There are reports of trained social workers who have visited the home and talked with parents about important questions such as the relationship of the child to other members of the family, his reaction to going to school, and his hopes for the future. There may be pages of observations by the teacher of his behavior in the classroom, pointing out his strengths and weaknesses.

Of course, there are not many children in any school who have the benefit of such adequate information for the planning of their education.

Who are they? Most likely the largest number are the mentally retarded, who usually go through very careful study before they are allowed to enter a special class and who are studied periodically throughout their subsequent school life. Apparently we recognize and accept the fact that we need to know all we can about these children in order to develop the talents they have. Within very recent years, gifted children are beginning to receive a more adequate share of attention in the study of their needs and capacities. Why do we not do as much for other children?

In the future, pupil personnel services will need to be expanded so that they can serve all the children and all the teachers. For instance, would it be possible to make the kindergarten year a year of discovery of the new pupil? A team of specialists could be made available to work with kindergarten teachers; they would have the sole job of developing as great an understanding as possible of each individual child and making such understanding available to those who will work with him in later years. The values at present inherent in the kindergarten year could be continued, but they could be greatly extended through the use of tests, home visits, conversations with the child, observations of his in-school and out-of-school behavior, exposure to different types of learning situations, and the combined evaluation of a number of people working in his behalf.

Learning from Children Themselves

One source of information has been greatly neglected, and that is what the child himself can tell us of his needs. The skilled observer can quickly discover the hunger for friendship, the fear of self-expression, the drive of curiosity, or the spark of originality. The oral and written expression of a child are open books of information about his interior world. The able teacher is alert to this information and uses it in his own teaching, but seldom is it systematically collected for all children or used in their behalf.

Some would undoubtedly question the ability of teachers to gather this type of information from children, and perhaps would question even more their ability to use such information effectively in planning a child's education. Some might even claim that such study is for specialists, and that it is inappropriate for teachers to concern themselves with the inner, personal world of their pupils. It is my belief that great teaching has always placed first priority on the psychological dynamics of the student and second priority on the subject matter to be learned. Teacher education should aim to make every teacher "expert" in his own right in discovering and utilizing these highly individualized human resources in each classroom.

How Can We Best Use Our Knowledge?

The next question follows closely after the first, namely, how do we utilize this wealth of information in planning for the educational experiences of the child in the school?

The traditional approach answers this question solely in terms of the content of the course. According to this point of view, each subject or discipline has its own assumptions and methods of approach and the question is seldom raised about how that approach must be changed for different kinds of students. Another school of thought might claim that the group must be the center of educational planning. It is true, of course, that the educational endeavor usually takes place in groups and that the teacher must constantly plan for groups of children. Still there is great danger that educational planning on the group basis alone too frequently responds to the needs of a few vocal students or to the special interests of the teacher and leaves many children to benefit but slightly.

My thesis here is that good educational planning, the kind that will effectively develop potentiality, will have to be based first of all on careful planning for individuals. This is placing no value judgment on group activities or content-centered courses, except to say that they are most effective when they fit individually planned programs. Years ago, when classes were habitually small, individual planning could be accomplished much more easily. The boom in the classroom population in the past 20 years makes it difficult to do individual planning in the same way as in previous times.

Need for More Individualization

New approaches to individualizing instruction are being tried in many places. I have no doubt that this trend will go further than the team teaching and individualized reading of today. When will we begin to admit children to school on the basis of an educational plan rather than on chronological age? We know that readiness is an important prerequisite to learning. We also know from some studies that children choose their friends much more on the basis of mental age than of chronological age, yet we do not utilize this knowledge in beginning a child's school experience.

Individualized programs will change the image of what a classroom is and what it looks like. There will be changes in architecture to make possible more diversified activity under the guidance of teachers and counselors. Thelen has drawn one model for such a school program, and many more models must be developed. Whatever form they take, they must be geared to an appreciation of the child as an emerging person.

Dr. Frank has made the point that there is no organization in the American community that is concerned with the whole child. "The schools could become such an agency, but their traditional preoccupation with formal intellectual education . . . effectively blocks this possibility at present." This can be changed, however, if we are serious about our task.

This may sound very costly, utopian and impossible, but I expect to see in the not too distant future teams of persons with different special abilities sitting in conference to plan individually for our children in school. The dollar cost will be greater, but it should be measured against a greater saving in human potential.

What Should Be Studied?

If the development of potential is to be our focus, we have to ask anew: What are we really trying to do in our educational endeavor? What should the child be studying to develop his potential?

The common assumption is that the accumulated knowledge of the past, the wisdom of the race, must be passed down to each succeeding generation. This is no longer possible or feasible. It has been estimated that the recent spurt in research and technology has doubled or tripled the existing knowledge of the race in the past quarter century. It is beginning to look like an impossible task to pass on to each succeeding generation the accumulated wisdom of man. Furthermore, some of our existing knowledge has been proven to be in error, so that it has to be reevaluated. In the face of such complexity, what should be our goals in education?

Education as Process Rather than Content

One possible alternative is to define education in terms of process rather than content of knowledge; thus, the central problem of education would be to help each child experience success in the mastering of new ideas. This goal is based on the theoretical assumption that the personal experience of success by the pupil in using his own resources to solve new problems is exciting, satisfying and habit-forming. The thrill of discovery whets the appetite for more problems and solutions. The child who has tasted this kind of success seldom has problems of motivation for learning; however, he may have problems of motivation for schoolwork as such when he finds himself in an unchallenging course.

The child who comes to school in the first grade with this pattern of success and confidence needs very little "instruction." He is going to learn, in one place or another, the things he wants and needs to learn. He needs only to be surrounded by increasingly complex problems to solve and to be given guidance to find new resources. You may remember that Anne Roe[4] discovered that many outstanding scientists trace their motivation for creative research to their early childhood experiences of free play with erector sets and construction toys. From the day they discovered that they could use their own ideas to create things, they were never able to break the habit. The task then is to create in each child a confidence in his problem-solving ability through graduated success experiences.

Our schools today are successful in this endeavor with many children, perhaps with 50 percent or more of the school population. These children come into kindergarten confidently, experience success year by year in their school tasks and personal living, go on to college or the work world with the satisfactions of effective adulthood. Yet at least a third of our children do not find this success. Their appetites and motivations are dulled or thwarted early in life, not only by their school experiences but by most of their contacts with the world around them.

Failure Breeds Failure

Thus, there is a corollary to the preceding assumption that is frightening to examine, namely, that when a child has repeated experiences of failure, he will likely repeat this defeat pattern throughout the rest of his life. If true, this is nothing short of tragic. In a study of school dropouts,[5] we found that one of the most common characteristics of these youngsters was their sense of defeat. One boy explained:

> You know, I was over sixteen when I quit. I had a feeling though that they were going to kick me out anyway. It was quit or get kicked out because of my bad behavior. I couldn't mind my teachers or they couldn't mind me, I don't know which. I thought I could finish the ninth grade. Then one day I was laying in bed and I just decided I was tired and might as well sleep.

Another boy said:

> They didn't say much until after I quit. Then they tried to get me to go back. If I would have gone back, I would have flunked anyway. I was so far behind that I didn't know what the teachers were talking about. I might have more interest now having been out. I know what it's like sitting out while everyone else is in. I've almost got to go back in order to get me a job.

Of the 40 percent of children who drop out of school, many feel this way.

Are we partly responsible for this feeling of defeat? Have we failed to provide challenging experiences and opportunities for success? Have we flunked such students year after year without changing our methods of trying to reach them? We will probably have to plead guilty to thwarting the potentiality of many students or at least to missing valuable opportunities with them. However, the hope for the future is here, too. If we can find how to supplant defeat experiences with success, we have the promise that it will make a major difference in their lives.

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[4] Anne Roe. *The Making of a Scientist.* New York: Dodd, Mead and Company, 1953.

[5] Paul H. Bowman and Charles V. Matthews. *Motivations of Youth for Leaving School.* Cooperative Research Project No. 200. Washington, D. C.: Office of Education, U. S. Department of Health, Education, and Welfare, 1960; mimeographed.

This emphasis upon process rather than content implies also an emphasis on flexibility. There is every promise that the problems of future generations will be increasingly different from those of past generations and that our children will have to be increasingly ingenious in solving such problems because there will be fewer guides from the past. Dr. Frank has suggested that imagination is perhaps our highest ability and the development of imagination and creativity should be a conscious part of our educational goal.

Mainly the Brain—or the Emotions?

In attempting to develop potential, should we be mainly concerned with intellectual potential or personal development? Do we work mainly with the brain or with emotions?

Yesterday a friend of mine who was out driving with his family gave me a lift in his car. Several different conversations were going on, and I enjoyed the role of a silent observer. A 12-year-old son was pestering father for an explanation of what antifreeze did in the radiator of a car. Mother and an older daughter were discussing the advantages and disadvantages of joining a girls' activity group. The younger son was curled in a corner of the back seat carefully spelling out the words on a nearby billboard.

Fusion of Both Needed

This was definitely a learning situation, with different people learning different things in their own way, including myself. Were these activities involving mainly the brain or the emotions? It is clear that both intellect and emotion were being used by all three of these children in their own learning experiences. The 12-year-old had just seen a car with a frozen radiator and was trying to understand the cause. The girl obviously would like the status of belonging to a group of girls but was not sure she would enjoy the activities involved. Junior was lost in the wonderment of his new-found knowledge of spelling.

The traditionalist would undoubtedly agree that in this setting emotion and intellect were inseparable but would probably insist that the school should concern itself only with intellectual pursuits. He would also probably prefer to regard learning as work rather than fun. Teachers should make students work in the classroom, and they should be given plenty of homework. Fun should come after school and after work is completed.

This division between work and fun seems highly artificial, just as the division between intellect and emotion. Perhaps you have had the opportunity of observing a high school basketball team at practice. Is it work or fun, intellectual or emotional? There are few activities more emotional than high school basketball, but the winning team is frequently the one which has outthought the opponent. These boys would not be on the floor were it not for the fun of playing the game. Yet they must drill hour after hour on fundamentals. The game has all of the appearance of work, but the boys say they are doing it for love of the sport.

This fusion of the intellectual and the emotional is equally important in the classroom. Pure logic is for the machine, and now the machine can perform these operations even better than man. Pure undirected and unbridled emotion is for the jungle. The peculiar human nature is the blend of the two. If we are to develop our human potential adequately, we must give careful attention to both.

For instance, it is important for learning that the teacher and the student respect and like each other. How can better interpersonal relations in the classroom be promoted? Should students and teachers choose each other? Much learning takes place through the contagion of personal relationships. The teacher who encourages creativity in students is usually a person who is continually creative himself. In *Origins of American Scientists,*[a] it is pointed out that the greatest factor in producing scientists is the influence of a creative teacher who is busy at research in his own speciality.

Learning Many Things at Once

We cannot separate intellectual and emotional learning even if we try. The strictest formal classroom teaches as many emotional facts as historical facts. For example, note this class in sixth grade history.

Teacher: Johnny, why was the Civil War fought? (No answer from Johnny.) Johnny, will you stand up and explain to the class why the Civil War was started?

Johnny: (Now on his feet) I know that General Lee and General Mead had a terrific fight at Gettysburg and that lots of soldiers were killed. We visited there last summer, and we saw Charley Weaver and his—

Teacher: Johnny, if you don't know the answer, turn to page 65 in the book and read it out loud.

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[a] Robert H. Knapp and H. B. Goodrich. *Origins of American Scientists.* Chicago: University of Chicago Press, 1952.

Johnny: (Picking up his book and sullenly reading) "The Civil War was called the War of Secession." (The last word is mispronounced with accompanying laughter.)

Teacher: You may sit down, Johnny.

In this interchange, Johnny learned that the Civil War was about secession, if he knows what that means. But what else did he learn? He learned, for example, that the teacher is not interested in what he does know about the Civil War, that she is not interested in Charley Weaver's museum, that she probably would not be interested in the model of the Gettysburg battlefield which he has made, that it is embarrassing to get up in front of the class, and that he should avoid such possibilities in the future. He was too upset at the moment to get the point that if he had studied the textbook, he would not have been so embarrassed. Emotional and intellectual learning take place together.

This should not imply that to relate emotion and intellect a teacher needs to go down every side road that is presented by his pupils. In my younger days as a pupil, I consciously abetted such excursions of the teacher, especially on days when homework was not done. Rather, following such leads implies that the experiences and ideas of students related to the topic of study are important additions to material in the textbook and should be used skillfully by the teacher toward realizing his goal. A high school principal states it bluntly, "A skilled teacher can and must accept and relate, but he must be careful not to go rabbit hunting." It is the task of educators to see that both emotion and intellect serve the purpose of developing the child's potential.

What New Resources or Tools Are Needed?

If we are to do a more adequate job of developing potential, what additional resources or educational tools do we need? Or are our present teaching resources sufficient to the task?

The arena for learning today is the classroom presided over by a teacher. There are many books, films, maps and charts available to him; and there are the laboratories, the libraries, shops, and facilities for recording. Such resources are being provided in greater quantity and in better quality. Most of these resources, however, are secondary in nature, only representing the real world outside and therefore being limited in their impact on children. As I see it, we are neglecting the greatest resource we have for increasing the effectiveness of our education—the community itself.

The possibilities here are endless. Think, for example, of the resources that exist for the teaching of arithmetic and mathematics. Where can elementary children go to see mathematics used and to feel its importance in our lives—the telephone company, the high school scoreboard, a warehouse? How can a visit by high school students to the IBM room of a local industry increase their comprehension of mathematics? Perhaps a community has a computer which could challenge the interest of the most capable students. The civics class shows films of Congress in action, but a visit to the City Council gives the students an insight into government that they could never achieve otherwise.

Community Resources for Classroom Use

Think, too, of the community resources that can be and sometimes are brought into the classroom itself. Most communities these days have residents or visitors from foreign countries who can contribute immeasurably to the child's (and the teacher's) understanding of language, geography and history. Most communities will have residents in many different occupations, any one of which has contributions to make to the school program. The wide-awake school will conduct a systematic survey of the persons in the community who can and would like to participate annually in the school program as volunteers. These potential resources can then be made available to teachers of various levels and subject matters.

Perhaps our greatest single neglected resource is that of the parent of the school child. Most parents are genuinely concerned for their children and with some guidance can be a much greater help to the child and to the teacher in encouraging development. It has always seemed strange to me that there should be such widespread distrust between teachers and parents. It seems that they frequently fear and blame each other and seldom communicate except under duress. I once helped to organize a workshop composed of equal numbers of parents and teachers to see if they could learn to communicate with each other. At the end of one week, hostility broke out into the open and was only partially resolved. We have much to learn about open communication between and among teachers and parents.

Without doubt, the responsibility lies with the school to reach out and include the parents as a major resource in the education of children. Most parents respond with delight to an honest invitation to a closer relationship with the school. They are open to and hungry for suggestions as to how they can contribute more to their children. Of course, there are problems to be dealt with. Parents are well aware of sometimes being actively excluded from the school or of being given insignificant activities to keep them busy and quite naturally they respond with hostility. However, we in school work need their help as an educational resource if we are to individualize the educational process for each child. We must learn, therefore, to seek and use this help.

Individual and Group: Their Relationship

Up to this point we have not touched on the role of the group in the development of potentiality, but there are many unresolved questions about the place of individual and group member roles. It is not clear what balance between group and individual activity, between conformity and nonconformity, is most conducive to the fulfillment of potentiality.

When an adult seeks the approval of the group to such an extent that he will not exercise his own judgment or, on the contrary, when he is so outspokenly individualistic that he cannot learn from others, it is probable that his best interests are not being served. In between these extremes, there is a wide latitude for healthy variation. Developmental studies indicate that there is a gradual shift from the ego-centered life of the infant to the small play group of childhood to the intense group identification of adolescence. If, on the other hand, this sequence is stymied at some stage in the child's life and he does not succeed in establishing himself in groups, it is possible that in adulthood he will be the victim of an insatiable desire for group acceptance. Clinical studies show that this desire can drive a man to be a complete follower of the group in order to gain acceptance by the members. Or at the other extreme, this desire for acceptance may lead him to completely reject group life because the group has rejected him.

It would seem that the experience of group acceptance in some form is a prerequisite to the development of personal identity in adulthood. I recall the predicament of a counseling client who was very much disappointed in himself and who longed for a feeling of self-confidence and assurance. "But," he said, "how can I think well of myself when no one else thinks well of me?" A person needs to have some assurance from others that he is a worthwhile person and with such assurance he then can go ahead to more independence from groups. Maslow [7] notes that those persons selected for their high degree of self-actualization were quite independent of group life. They had relatively few friends, but these friendships were much deeper and closer.

Numbers of studies have examined the functioning of groups, but much more research is needed on the contribution of group belongingness to the development of personal identity. In the meantime, however, the teacher's management of the individual's relationship to the group is an important part of educational method. The old controversy of homogeneous vs. heterogeneous grouping must eventually be decided in terms of the effect on the individuals involved. Thelen's work again gives us a clue that there must be enough homogeneity in the group to provide a feeling of belonging so that the individual can be freed to express himself. When the slow student is always thrown with the much faster student, both may experience a feeling of frustration. In one experiment [8] a group of slow students who never participated in class were grouped together in one section for most of the day. After a year of this experience, one girl evaluated it as follows:

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[7] A. H. Maslow. *Motivation and Personality*. New York: Harper and Brothers, 1954.

> I think myself that this is really a good idea. Because with this kind of thing you can learn and say and tell if you're not a brain. You can express yourself more freely. You can feel more at ease and not have to feel real dumb and feel real bad and "embrasest" in front of children who are real smart in most all of their ideals and studies. But most of all I think if you try your best and try to help the teacher get it in your head this isn't just a place to mess off and try to make it hard for her and everyone else, this would be a good place to start learning without just be passed on and on from one class to another getting dummer ever year.

Thus, the development of group belongingness becomes an important educational tool for the development of potentiality in young children.

Blocks and Barriers—and New Ideas

Any program that attempts to improve our educational system must be predicated on a ruthless honesty in analyzing the blocks to learning that have been created and on a courage and freedom to experiment with new ideas. Where these conditions exist, exciting learning can take place; where they do not, the potentialities of many children do not have fair opportunities of expression. I wonder where the idea started that all children of the second grade should finish the year in Book No. 4 of Publishing Company "X" or that all programs must be carried out simultaneously in all schools within one system. Such uniformity and rigidity kill off the initiative of teachers and principals, and they fall back passively into the traditional rut. This in turn is especially hard on the motivation and interest of the brighter students.[9]

One bright high school senior stated it very succinctly:

> I am not very enthusiastic about my classes. I am unhappy with English because I feel that we never do anything long enough to get much out of it. We work on *Macbeth* one day, then grammar one day, then spelling one day, and back to *Macbeth*. I'm getting rather tired of just listening to lectures all

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[8] Gordon P. Liddle. "An Experimental Program for Slow Learning Adolescents." *Educational Leadership* 17: 189-92; 1959.

[9] James V. Pierce and Paul H. Bowman. "Motivation Patterns of Superior High School Students," in *The Gifted Student*. Cooperative Research Monograph No. 2, Office of Education, U. S. Department of Health, Education, and Welfare. Washington, D. C.: U. S. Government Printing Office, 1960. p. 33-66.

> the time. I like more active things. I like my extracurricular activities but get tired of playing the passive role in class all the time.

We Need To Understand Nature of Blocks

Or again, what blocks are there to learning that make possible the following situation? A teacher in a good high school discovered a boy of a 112 IQ in the eleventh grade who could read only at a third grade level. There was no evidence in his cumulative folder of how this state of affairs had come about. The teacher did not know how the boy felt about his reading disability or what she should do to correct it. However, a few weeks later she got the answer direct from the boy in a theme he had to write on the topic, "And finally I gave up the search in despair":

> When I was a boy in first grade, I was slow in most everything I did. I usual had to stay after school and finish my work. That was the first time I flunked. Flunked got to be a ugly word with me. The second year in first grade didn't help me. The second and threeth grades went by and I didn't learn anything. The fourth grade I was flunk again. What was my trouble. It was reading. I never couldn't learn to reade and no one saw to it that I did. We can skip the grads fifth thourth ninth. In the tenth grade I had fully realize that I had to learn to read. I was seventeen and in the tenth grade. Mom got som outside help for me. It did some good for me but not enough. I still don't know how to read good and when you can't read you soon get discouraged and furthermore it would suit me ever well to get kick right out of here and when I use your sentence "finall I gave up the search in despair" I am talking of hope of learning to read.

This is an eloquent but tragic document. It is difficult to believe that an able young man could spend 11 years in school without learning to read and without the school's undertaking some special help for him, but apparently his is not a unique case. We need to know how this happened so that it shall not happen again.

Finally, we need research and experimentation, not only the kind that goes on at university campuses, but the kind that is carried out in classrooms by teachers who are seeking better ways of reaching students. We need to know so much more about the learning situation in the school and about the internal world of the child as he lives in his home and community.

However, we have enough research now to know that there are endless possibilities in the human material and we know that the patient understanding and skillful guidance of adults is the key to their realization. This constitutes a ready challenge to every teacher.

At this point, educators might be tempted to mutter as a rejoinder that things cannot be changed because the public would not accept it.

If so, I would hasten to shout, "Tilt!" This is not true. The public accepts what it is educated to accept, and public acceptance is usually a rather good criterion. If I did not believe this, I would not care to live in a democracy.

How Change Takes Place

How do changes take place? For example, how did the fluoridation of water come about? Certainly not by waiting for the public to request it. The steps in the process seem rather clear—first the research to find out facts and possible steps of improvement, then a presentation to the public of these facts by professional people who propose specific changes, then open and sometimes heated discussion of the issue, then acceptance of change in the more progressive or "educated" communities, and finally general acceptance.

Many changes in education come as we educators convince the public that we have something better for their children. We have the advantage that there is nothing that gets the attention of the public more quickly than proposals concerning children. In fact, there is some evidence that the public is more ready for educational change than the education profession as a whole. The recent stir about quality education and programs for gifted students has been largely a push from the public rather than from the profession, has it not? Let us not make the mistake of underselling the concern of the public for educational reform, or of excusing ourselves for our lack of initiative or ingenuity in educating our public.

The implementation of any of the ideas discussed here will obviously mean considerable cost in time, energy and money. None of the ideas will be put into effect unless educators and the public see the development of potentiality as a major value in our culture. There are prophets among us who would have us believe that Western culture is now devoid of significant values. They would say that the Protestant ethic has all but disappeared and that there is no new morality or system of beliefs that commands the attention and devotion of the American people. The response of American youth to the Peace Corps would, however, belie this point of view. The Peace Corps volunteers generally are exhibiting a dedication to values that is surprising to most people. Eduard C. Lindeman[10] has proposed a new morality based on mental health and the development of human potentiality that he feels might be an adequate supplement to the Protestant ethic.

The concern for children and for their future welfare is a commonly shared value, but it remains to be seen how strong a value it is. Are we will prejudice the answer to this question by our efforts in reaching our people willing to pay the cost of a revised education? As educators individual children who pass through our classrooms. The discovery of new insights and their implementation in the teacher-pupil relationship is the concern of this volume.

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[10] Eduard C. Lindeman. *Mental Health and the Moral Crisis of Our Times.* Austin, Texas: The Hogg Foundation, 1952.

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KNOWLEDGE | NEW CONCEPTS & POSSIBILITIES

ALL kinds of forces have combined to cause us to seek new insights into the nature of knowledge. Without pausing to try to account for the forces, we may agree that as a result we are asking old questions in ways that sound fresh to us. What do we mean by a discipline? By structure? What is most teachable about or from a discipline—key concepts and generalizations, a method of dealing with one aspect of the world, experiences in depth within a field of knowledge, or what? How can we teach for structure without risking too early or too much abstraction? What is the relationship between how we teach a discipline and what is learned from it?

Among the major sources of new insights about knowledge, we include scholars in all the fields from which we draw content for the experiences we plan for and with children and youth. We have learned to welcome and value our new colleagues, though we may have a long way yet to go in understanding how to relate their competencies to our purposes. We are hesitant to ask, "What shall we teach?" This is a question, we know, that is best asked of ourselves. We want, nonetheless, to have the help of the creators of new knowledge in exploring what defines each field and what might be most worth knowing in it.

But we are also drawing on other sources for new ideas about what learners should and can know. One of these, the psychology of learning, speaks most directly to us through the work of Jerome S. Bruner, the impact of whose ideas is much in evidence in the two chapters to follow. Bruner's two books have helped us see both the urgency of teaching for structure and the cruciality of teaching so that structuring comes as a result of thought and discovery.

Another major source on which we are drawing is that of information and communication theory. The position of Marshall McLuhan, whose chapter follows, has been among the most stimulating of the several schools that comprise this field. McLuhan challenges us to free ourselves from bondage to "the older segmental and sequential patterns of perception and process" that grew out of a print culture. Then we will be able to help learners respond more intelligently to the "simultaneity of information structure" exemplified by television. A new conception of knowledge is upon us, as McLuhan sees it, in which developing insight is substituted for a fixed point of view and "active participation for passive consumer appreciation." His highly exciting vision is of an "electronic era" when "the real work of mankind becomes learning and teaching in a timeless process of exchange and enrichment by the human dialogue."

All these and other sources of new insights into the nature of knowledge are used by Alice Miel as a base for her chapter of curriculum implications. She begins with an exegesis on McLuhan's statement and continues with a much needed analysis of the problems related to teaching the disciplines as structures. From this background, she then proposes a new curriculum that is intended to let us "have it both ways," combining what we know about the role of problem solving in learning with a new concern for fields of knowledge as possessing an integrity of their own.

Chapter 3

We Need a New Picture of Knowledge

Marshall McLuhan

I WONDER whether Jerome Bruner, during the writing of his fine book on *The Process of Education*,[1] ever asked himself why there has come the sudden acceptance of the "structural" approach in all fields today. Am I really asking him whether he had any structural awareness of the new relevance of the structural approach? Had he also asked himself the causes and origins of the nonstructural approach to life and learning which had dominated the Western world in recent centuries? Since American institutions of law, politics and education had mostly originated in the heyday of the nonstructural idea of perception and learning and organization, it would follow, surely, that the transfer of these modes and skills into the forms of structural or "field" awareness and procedure would entail a considerable trauma in national life.

Of course, the prestructural phase of life and learning and social organization had a structure of its own. Why should we find it natural to ignore this structure and to talk about the structural approach to knowledge as a new departure? What we do "naturally" is presumably much the same as unawares or unconsciously. Is it possible that Professor Bruner's acceptance of the new structural approach is as unconsciously structured as his assumptions about the prestructural approach? Perhaps it will repay us to examine the prestructural approach to life and learning as a preliminary to appraising the current structural approach.

Of course, I accept Professor Bruner's account of the structural approach as one involving depth awareness of a simultaneous field of relations. This in turn supposes dialogue, rather than description, in teaching and learning, and insight in place of a mere point of view. The structural approach substitutes team for specialism, and pursues causes and effects, in all situations, rather than aiming at a visual chart of data and organization. The structural approach is not an affair of "views" nor single planes nor analytic *isolation* of functions.

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[1] Jerome S. Bruner. *The Process of Education*. Cambridge, Massachusetts: Harvard University Press, 1960.

Prestructural Approach to Life and Learning

It was about 1870 that Claude Bernard instituted the structural approach in experimental medicine, showing that the knowledge of separate organs could be advanced by their ablation or suppression. Then by observing the overall effect of this ablation on the changed relations among all the other organs, the properties of the suppressed organ became automatically manifest. This total or structural approach to the interplay of functions and properties is called "closure" or "completion" in current psychology. "Closure," in fact, is new balance or recovery after the shock of ablation or suppression of some organ or function. It is a kind of study that has developed very rapidly in brain physiology at the present time.

Emphasis on Visual Faculty

Needless to say, the principle involved offers the indispensable approach to any kind of "social change" or shift of relationships among existing procedures. Thus, the educational revolution in our day is the effect of ablation or suppression of functions that were previously dominant. The result is new "closure" among our faculties. I have devoted the *Gutenberg Galaxy*[8] to a history of the new "closure" in human perception and judgment that occurred with the acceptance of the phonetic alphabet in the ancient world. The advent of phonetic literacy involved a suppression of the dominant ear culture of tribal men, and the new "closure" gave salience to the visual faculty which we properly associate with the rise of Western man and of the "open society."

In the later eighteenth century, William Blake became obsessed with the implications for personal and social change of the new technologies. He was the first to proclaim that the outering or transfer of our senses and faculties into material technologies necessarily altered our human perceptions. In *Jerusalem* he states this pervasive theme:

> If Perceptive organs vary, Objects of Perception
> seem to vary:
> If the Perceptive Organs close, their Objects seem to
> close also.[9]

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[8] Marshall McLuhan. *Gutenberg Galaxy*. Toronto, Canada: University of Toronto Press, 1962.

[9] William Blake. "Jerusalem." Book II, Chapter 34. *The Poetry and Prose of William Blake*. Geoffrey Keynes, editor. London: Nonsuch Press, 1932.

Determined as he was to explain the causes and effects of psychic change, both personal and social, he arrived long ago at the theme of the *Gutenberg Galaxy:*

> The Seven Nations fled before him: they became what
> they beheld.[4]

Blake makes quite explicit that when sense ratios change, men change. Sense ratios change when any one sense of bodily or mental function is externalized in technological form:

> The Spectre is the Reasoning Power in Man, & when separated
> From Imagination and losing itself as in steel in a Ratio
> Of the Things of Memory, It thence frames Laws & Moralities
> To destroy Imagination, the Divine Body, by Martyrdoms & Wars.[5]

Imagination is that ratio among the perceptions and faculties which exists when they are not embedded or outered in material technologies. When so outered, each sense and faculty becomes a closed system. Prior to such outering there is entire interplay among experiences. This interplay or synesthesia is a kind of tactility such as Blake sought in the bounding line of sculptural form and in engraving.

When the ingenuity of man has outered some part of his being in material technology, his entire sense ratio is altered. He is then compelled to behold this fragment of himself "closing itself as in steel." In beholding this new thing, man is compelled to become it. Such was the origin of lineal, fragmented analysis with its remorseless power of homogenization:

> The Reasoning Spectre
> Stands between the Vegetative Man & his Immortal Imagination.[6]

Blake's diagnosis of the problem of his age was, like Pope's in *The Dunciad*, a direct confrontation of the forces shaping human perception. That he sought mythical form by which to render his vision was both necessary and ineffectual. For myth is the mode of simultaneous awareness of a complex group of causes and effects. In an age of fragmented, lineal awareness, such as produced and was in turn greatly exaggerated by Gutenberg technology, mythological vision remains quite opaque. The Romantic poets fell far short of Blake's mythical or simultaneous vision. They were faithful in the main to Newton's "single vision" and perfected the picturesque outer landscape as a means of isolating single states of the inner life.[7]

[4] *Ibid.*, Book II, Chapter 36.

[5] *Ibid.*, Book III, Chapter 74.

[6] *Ibid.*, Book II, Chapter 36.

[7] This theme is developed apropos H. M. McLuhan. "Tennyson and Picturesque Poetry." *Critical Essays on the Poetry of Tennyson*. John Killham, editor. London: Routledge and Kegan Paul, 1960. p. 67-85.

Example of Nonliterate Culture

This process of transfer or translation by which an entire culture or way of life is transformed by the phonetic technology is the theme of a remarkable statement by Carothers which examines the effects of the most rudimentary levels of literacy on the perceptual lives of African natives, contrasting these semiliterates with the merely nonliterate. He starts with this familiar fact that

> . . . by reason of the type of educational influences that impinge upon Africans in infancy and childhood, and indeed throughout their lives, a man comes to regard himself as a rather insignificant part of a much larger organism —the family and the clan—and not an independent, self-reliant unit; personal initiative and ambition are permitted little outlet; and a meaningful integration of a man's experience on individual, personal lines is not achieved. By contrast to the constriction at the intellectual level, great freedom is allowed for at the temperamental level, and a man is expected to live very much in the "here and now," to be highly extraverted, and to give very free expression to his feelings.[8]

In a word, our notions of the "uninhibited" native ignore the utter inhibition and suppression of his mental and personal life which is unavoidable in a nonliterate world:

> Whereas the Western child is early introduced to building blocks, keys in locks, water taps, and a multiplicity of items and events which constrain him to think in terms of spatiotemporal relations and mechanical causation, the African child receives instead an education which depends much more exclusively on the spoken word which is relatively highly charged with drama and emotion.[9]

What this means is that a child in any Western milieu is surrounded by an abstract explicit visual technology of uniform time and uniform continuous space in which "cause" is efficient and sequential and things move and happen on single planes and in successive order. But the African child lives in the implicit, magical world of the resonant oral word. He encounters not efficient causes but formal causes of configurational field such as any nonliterate society cultivates. Carothers repeats again and again that rural Africans live largely in a world of sound—a world loaded with direct personal significance for the hearer—whereas the Western European lives much more in a visual world which is on the whole indifferent to him. "Since the ear world is a hot hyperaesthetic world and the eye world is relatively a cool, neutral world, the Westerner appears to people of ear culture, to be a very cold fish, indeed." [10]

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[8] J. C. Carothers. "Culture, Psychiatry, and the Written Word." *Psychiatry* 22: 307-20; November 1959. p. 308.

[9] *Ibid.*

[10] See chapter on "Acoustic Space" in Edmund Carpenter and Marshall McLuhan. *Explorations in Communication.* Boston: Beacon Press, 1960. p. 65-70.

Carothers reviews the familiar nonliterate idea of the "power" of words where thought and behavior depend upon the magical resonance in words and their power to impose their assumptions relentlessly. He cites Kenyatta concerning love magic among the Kikuyu:

> It is very important to acquire the correct use of magical words and their proper intonations, for the progress in applying magic effectively depends on uttering these words in their ritual order. . . . In performing these acts of love magic the performer has to recite a magical formula. . . . After this recitation he calls the name of the girl loudly and starts to address her *as though she were listening.*[11]

It is a matter of *rite* words in *rote* (harp) order, as Joyce puts it. But once more any Western child today grows up in this kind of magical repetitive world as he hears advertisements on radio and television.

Carothers next asks the question: "How might literacy in a society operate to effect this change?" That is, the change from the notion of words as resonant, live, active natural forces to the notion of words as "meaning" or "significance" for minds:

> I suggest that it was only when the written, and still more the printed, word appeared on the scene that the stage was set for words to lose their magic powers and vulnerabilities. Why so?
>
> I developed the theme in an earlier article with reference to Africa, that the non-literate rural population lives largely in a world of sound, in contrast to Western Europeans who live largely in a world of vision. Sounds are in a sense dynamic things, or at least are always indicators of dynamic things—of movements, events, activities, for which man, when largely unprotected from the hazards of life in the bush or the veldt, must be ever on the alert. . . . Sounds lose much of this significance in western Europe, where man often develops, and must develop, a remarkable ability to disregard them. Whereas for Europeans, in general, "seeing is believing," for rural Africans reality seems to reside far more in what is heard and what is said. . . . Indeed, one is constrained to believe that the eye is regarded by many Africans less as a receiving organ than as an instrument of the will, the ear being the main receiving organ.[12]

Effects of Prestructural Approach

Carothers reiterates that the Westerner depends on a high degree of visual shaping of spatiotemporal relations without which it is impossible to have the mechanistic sense of causal relations so necessary to the order of our lives. But the quite different assumptions of native perceptual life have led him to ask what has been the possible role of written words in shifting habits of perception from the auditory to visual stress.

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[11] J. C. Carothers, *op. cit.*, p. 309.

[12] *Ibid.*, p. 310.

In obtaining an eye for an ear, Western man clearly abandoned depth or structural knowledge in favor of applied knowledge. For the phonetic alphabet gave him the means of translating and reducing the complexities of the ear world to the flat retinal level of visually organized data. With Gutenberg came a further stage of this transfer of multileveled awareness into the typographic forms of *exactly repeatable* data. This very large step of transferring a manual craft into a mechanical form was done strictly within the compass of phonetic technology; that is, the further analysis of functions into uniform segments of movable and replaceable kind was the step that created at once the infinitesimal calculus, the uniform citizen armies of Napoleon, and the assembly lines of mechanical industry. (Of course, with electronic tapes the assembly line has become an obsolete form in industry.)

Such is the structure of the large mechanical phase of Western culture which ended with the discovery of electromagnetic waves more than a century ago. The preelectric or mechanical period of our Western world was formed on the basis of phonetic literacy and completed by Gutenberg technology as it extended itself to every part of social organization. In terms of the learning and educational process, the Gutenberg era of our Western world saw the suppression of dialogue in favor of visual systems and blueprints of knowledge laid out in "subjects" and "fields" packaged in varying degrees of processing and predigestion. Our Gutenberg technology enabled us to "apply" knowledge freely; that is, we learned how to translate every sort of knowledge into single planes of homogeneous kind. Applied knowledge is a process of translation and reduction of varied forms into a single form. This process of homogenization, as it gathered momentum, struck panic into the nineteenth century mind, but it greatly increased property and wealth and made the first consumer society.

In terms of learning and education, the homogenization of the population made available huge manpower pools for industry and war alike; but to many, all of this appeared as a perversion of life and learning. The structure of the educational process under Gutenberg technology began to resemble the reduction of life to a prose machine. This feeling increased greatly as the nineteenth century wore on. There is a notable passage in Teilhard de Chardin's *The Phenomenon of Man* which illuminates the matter. He explains the new technologies as they created abrupt new "closure" or completion in human experience:

> Now, to the degree that—under the effect of this pressure and thanks to their psychic permeability—the human elements infiltrated more and more into each other, their minds (mysterious coincidence) were mutually stimulated by proximity. And as though dilated upon themselves, they each extended little by little the radius of their influence upon this earth which, by the same token,

shrank steadily. What in fact do we see happening in the modern paroxysm? It has been stated over and over again. Through the discovery yesterday of the railway, the motor car, and the aeroplane, the physical influence of each man, formerly restricted to a few miles, now extends to hundreds of leagues or more. Better still: thanks to the prodigious biological event represented by the discovery of electro-magnetic waves, each individual finds himself henceforth (actively and passively) simultaneously present, over land and sea, in every corner of the earth."[19]

That the discovery of electromagnetic waves was a "prodigious biological event" indicates the moment of shift from lineal and mechanical form to the "structural" awareness which fills the horizon of Professor Bruner. It is important to observe that the quality of the new "structural," as opposed to the old lineal, sequential and mechanical, is the quality of the simultaneous. It is the simultaneous "field" of multitudinous events in equipoise or interplay that constitutes the awareness of causality that is present in ecological and nuclear models of perception today. Our electric mode of shaping the new patterns of culture and information movement is not mechanical but biological. This is the shift to structure in the process of education today.

Understanding Both the Old and the New

If, however, we are to effect the new "closure" that electronics has brought by its ablation or suppression of the older mechanical procedure of "one-thing-at-a-time," we must understand both the old and the new thoroughly. For our involvement in the older segmental and sequential patterns of perception and process is so extensive that our establishments of law, education and politics have been wholly shaped by the dynamics of lineality and of Euclidean space, as it were. We are now, by our new technology, compelled to live a century or more ahead of our established models of perception and judgment. This is not a pleasant or comfortable situation. Let us take a single, but by no means modest, sample of the force exerted upon our older habits of perception and experience by electronic technology.

Impact of the TV Image

When we hear that a popular magazine is in trouble, or that the motor-car industry is running scared, or that the textbook industry like the school system is in the process of total restructuring, few people are inclined to suspect that all of these changes and a very great many more are directly due to the impact of the TV image on the American senses. The TV image is not the first to have reshaped the outlook, the preferences and the desires of a society. There have been earlier outerings of the human senses in technological form. Externalizations of our senses, such as the wheel, the phonetic alphabet, radio and photography, also constituted closed systems which invaded the open system of our senses with tremendous transforming power. But the TV image is the first technology by which man has outered his haptic, or tactile, powers. It affects, therefore, the balance or ratio among our senses. New "closure" or completion is, in fact, a new posture of mind charged with new preferences and desires, as well as with new patterns of perception.

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[19] Pierre Teilhard de Chardin. *The Phenomenon of Man*. New York: Harper & Row, Publishers, Inc., 1959. p. 240.

The elementary and basic fact about the TV image is that it is a mosaic or a mesh, continuously in a state of formation by the "scanning finger." Such mosaic involves the viewer in a perpetual act of participation and completion. The intensely dramatic character of this image is shared in no way by the photograph or by the movie image. The TV image is not a shot, nor a view of anything, so much as an experience. Its primarily tactile, rather than visual, character is a quality familiar to art historians in connection with mosaic work and with abstract art. These also, like the TV image, foster an intense experience of structure and interrelation of form for which the visual experience of Western man since the Renaissance has prepared us not at all. For the tactile image involves not so much the touch of skin as the interplay or contact of sense with sense, of touch with sight, with sound, with movement.

As this image invades our lives, we suddenly discover new cravings for new kinds of order in our immediate environment and in our daily lives. Our sense of taste and texture is altered in food and in housing and clothing. What becomes satisfying or acceptable in spatial arrangement or in the organization of time or in our involvement in the learning process suddenly takes on new contours and new rhythms. After centuries of packaged learning and visually organized curricula, men suddenly rediscover the primacy of dialogue and interplay of mind as indispensable to insight. Insight, itself, is a revolutionary demand, the typical "closure" of man experiencing the TV image. So shaped in the participational mode, the entire population suddenly develops a distaste for the older consumer values and insists on new design in which the consumer is an integral part of the making process. With the TV image, our age-old separation of senses and functions terminates.

This is to say that the new "closure" effected in our perceptions by the TV image is far more revolutionary than anything yet dreamt of in the world of educational experiment. The gap between the sensibilities of young students (the new TV generation) and their educational programs is very great. The students have already undergone great changes, and they are confronted by teachers and educational procedures that have scarcely changed at all. Yet culture-lag is a factor that cannot be tolerated at all under electronic conditions of simultaneous "field" awareness. Under any previous conditions of human interdependence and organization, culture-lag was not only tolerable, it was necessary for health and for continuity of development, as well as for social coherence and for an integral consciousness. In our world of total coexistence and interdependence, we are aware, not only of all existing cultures, but of all past cultures, as well.

Educator and Artist: A World Without Walls

On a massive global scale the educator now faces the dilemma of the artist. As Malraux presents the matter in his *Museum Without Walls*,[14] the painter today has to produce his images of new "closure" and new order while his experience encompasses the totality of world art. Formerly painters worked with only the art of their own time in view. The photograph ended that parochialism in painting and in architecture and in the matter of consumer goods, as well. T. S. Eliot in 1917 stated the same situation for poetry when he said that the whole of art "from Homer to the present" forms a single order that is modified by the advent of new work. Under conditions of electronic simultaneity, what has long been true for poetry and painting now affects every modality of social and private life.

Today it is easy to understand why Cézanne abandoned perspective in favor of a structural approach to vision. Gombrich in his recent *Art and Illusion*[15] expounds "the anguish of the third dimension" and gives a history of the alternating fortunes of "matching *vs.* making" as an approach to art and experience from the fifth century BC to the present. As I show in the *Gutenberg Galaxy*, it was the isolation of the visual factor in experience by means of phonetic literacy that set up the criteria of matching or visual representation in art. Since Cézanne, since the electronic age began, matching has yielded to making, and consumer "appreciation" has given way to ever deeper audience participation in the art process. That it should seem odd or strange to say that "abstract" art is the only form that art can take when there is much audience participation or completion of the art process, is the measure of our inadequacy to meet the most ordinary demands of the new electronic culture. Yet Galbraith in the *Liberal Hour*[16] is stating the most elementary truth when he tells us that the business that wants to stay in business must now devote much attention to the new forms of art. The models of perception ever renewed by the artist in his experiments are indispensable means of adjustment and navigation in our new world. Even as higher education has become indispensable to production, a clear awareness of the new art models of perception is crucial for the decision-maker. The gap between culture and commerce has closed as suddenly as telegraph and radio closed the gaps between oceans and continents.

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[14] Andre Malraux. *Museum Without Walls*. Vol. I of *Psychology of Art*. New York: Pantheon Books, 1949-51.

[15] E. H. Gombrich. *Art and Illusion*. New York: Pantheon Books, 1959.

[16] Kenneth Galbraith. *Liberal Hour*. Boston: Houghton Mifflin Company, 1960.

Art seen as guide to daily perception puts structuralism in education again, but in a very extended sense. For all forms of mathematics and science, as much as the changing modes of historiography and literature, offer instruments and models of perception. It follows that any existing "subject" in our curricula can now be taught as a more or less minor group of models of perception favored in some past or at present. Taught in this way any "subject" becomes an organic portion of almost any other "subject." Moreover, it also follows that "subject" taught structurally in this way offers innumerable opportunities for new perception and new insight even at elementary levels. The idea of the "content" of education as something to be lodged in the mind as a container thus belongs to the preelectronic phase and to the era of Euclidean space and Newtonian mechanics. A structure cannot be contained. Any conceivable container is at once part of the structure, modifying the whole. The idea of "content" at once reveals a structure of perception and assumptions from which the artist and the poet have been trying to free us for a full century. But now the nuclear physicist has intervened on the side of the artists, and the pressure to heed the message of the artists has become more urgent.

A New Emphasis on Process

It was Whitehead's *Science and the Modern World* that first drew wide attention to the close relations between art and science. Any structural approach in education has to take into account his observations about structural procedures of the nineteenth century:

> The greatest invention of the nineteenth century was the invention of the method of invention. A new method entered into life. In order to understand our epoch, we can neglect all the details of change, such as railways, telegraphs, radios, spinning machines, synthetic dyes. We must concentrate on the method in itself; that is the real novelty which has broken up the foundations of the old civilization. . . . One element in the new method is just the discovery of how to set about bridging the gap between the scientific ideas, and the ultimate product. It is a process of disciplined attack upon one difficulty after another.[17]

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[17] A. N. Whitehead. *Science and the Modern World.* New York: Macmillan Company, 1926. p. 141.

The method of invention, as Edgar Poe demonstrated in his "Philosophy of Composition," is simply to begin with the solution of the problem or with the effect intended. Then one backtracks, step by step, to the point from which one must begin in order to reach the solution or effect. Such is the method of the detective story, of the symbolist poem, and of modern science. It is, however, the twentieth century step beyond this method of invention which is needed for understanding the origin and the action of such forms as the wheel or the alphabet. And that step is not the backtracking from *product* to starting point, but the following of *process* in isolation from product. To follow the contours of process, as in psychoanalysis, provides the only means of avoiding the product of process, namely neurosis or psychosis.

The nineteenth century discovery of the method of invention was the ultimate stage of the mechanical genius of our Western world that began with the alphabet and ended with the assembly line. To have isolated this process from its mere products, we owe to the artists and not to the scientists. However, we have now gone beyond the technique of the method of invention. It is the unique achievement of the twentieth century to have discovered the technique of the suspended judgment. That means the technique of understanding process in such a way as to avoid its consequences. We can now avoid "closure" because we understand it, in some areas at least. Perhaps this is akin to "weightlessness," the by-passing of gravitational consequences of a false step, as in a trick movie. And such understanding of process with the attendant means of evading its consequences is a natural feature of the simultaneous "field." For, in "field" awareness, the effects are seen at the moment as the cause.

A New Outlook on Learning

What has been happening to us since the telegraph for more than a century is that the new speed of information movement has led us quite naturally to abandon lineal patterns of sequential arrangement of data. More and more we do what the front page of a newspaper does. We create a mosaic or field of inclusive awareness, which has less and less to do with a spectator's "point of view," with all that implies of a fixed position.

The almost simultaneous character of electrical information coverage tends to create "field" rather than point of view. And "field" necessarily partakes of the character of interplay or of dialogue. In fact, when sense psychologists discuss the character of "auditory space," they define it as a field of simultaneous relations, a sphere without center or margin, a sphere that contains nothing and is contained in nothing.

As soon as one begins to consider the nature of auditory space, it becomes plain that we are habituated to thinking of space in visual and lineal terms. This tendency can be discerned in the rise of perspective in the early Renaissance. That is to say, an electronic age is inherently one whose information movement partakes of the character of auditory space rather than of the lineal and pictorial space which has dominated us for several centuries.

Field and Dialogue: In Management and Industry

What is relevant about all this to the rediscovery of the function of the dialogue in education is that the poets and painters decades ago revealed the importance of mosaic patterns of broken and discontinuous lines in creating systems of depth experience and participation. Yet during the past century, when the mosaic and participational forms had been developed in poetry and painting and music, the age was mainly engaged in education and industry and in marketing, in pushing the older lineal and pyramidal patterns of centralist organization to an extreme point of development.

As Muller-Thym has explained the matter:

> The first thing to be discovered was that pyramidal organizational structures, with many layers of supervision, and with functional division by specialty, simply did not work. The communication chain between top scientific or engineering leadership and work centers was too long for either the scientific or managerial message to be communicated. But in these research organizations where work actually got done, when one studied them he found that whatever the organization chart prescribed, groups of researchers with different competences as required by the problem in hand were working together, cutting across organizational lines; that they were establishing most of their own association; that individually or from a working center they arranged to tap directly into more senior sources of competence; and that the patterns of their group association at work followed the organization of their competences as human knowledges.[19]

The "cutting across organizational lines," which Muller-Thym cites, is typical of that growing dialogue among areas previously closed off as specialisms. He goes on to describe "the secret of Polaris" as having consisted of "a constellation of project groups" that functioned as a massive set of dialogue teams, as it were, who investigated the models in modern art, science, and technology "to see whether everything pertinent to the project was being used." Such seems to me to be an increasingly obvious trend in education today. But could not the educator take both courage and counsel from the amazing developments in modern management in the employment of dialogue at all levels?

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[19] B. J. Muller-Thym. "Practices in General Management—New Directions for Organizational Practice." American Society of Mechanical Engineers. *Fifty Years' Progress in Management, 1910-1960*. New York: the Society, 1961.

New Concern for Dialogue in Education

With regard to understanding the meaning of dialogue, as it returns to the educational scene, it is especially noteworthy that the so-called "teaching machine" has served to reveal two aspects of our educational situation. First, we can see now that the printed book was a "teaching machine" rather than a mere tool like the manuscript. We can also see now that the new "teaching machines" have less the character of book than of private tutorial dialogue. They have been badly named, somewhat after the fashion of the "horseless carriage."

Since dialogue is an interplay among centers, rather than the relaying of information from center to margin, or from teacher to student, we must keep in mind today that the same change has overtaken the centers of world culture and economy as we meet in the educational sphere.

What I have been proposing in this essay is that it is no longer necessary to move from one model to another of the educational process, as if we were following the higher dictates of some Hegelian disturbance in the emotional life of the Absolute. It is now possible to discern the structural features of the cultural situation that shaped the growth of the very special bias of Western consciousness. It is just as easy to discern the causes that shaped the bias of the Eastern mind. The control of all these causes is now within our grasp. We can deliberately pattern our cultures today by altering the mix of components with their attendant "closures" or effects on our outlook and desires and goals. For the goals of any culture are included in its initial structure exactly as the Polaris missile has its target built into it by gyroscopy. Any alteration of structure is a change of target. But since men do not choose to be missiles, their new awareness of structure can be used to free them from the consequences of any one structure. We can now deliberately create total "field" situations which hold the usual structural consequences in abeyance.

I doubt whether Professor Bruner had this in mind; but I welcome his seizing upon the new structural possibilities of the educational process. For awareness of structure already means a breakthrough into critical self-consciousness and acceptance of the technique of the suspended judgment. Such open-endedness or continuous dialogue insures that man can free himself from social and educational conditioning as easily as jet travel frees him from climatic "closure" or conditioning. The free interplay of models of perception and knowledge releases the student into new depth awareness, even of existing structures of knowledge. But the educational process will thus shift from the imparting of information to the critical training of perception. The various structures of knowledge that have been devised by the numerous languages, arts and technologies of mankind can be revolved or inspected almost at the speed of motion picture frames. At such speed would not the unity of human culture and experience become manifest as a single spectrum?

Earth as a Single Campus

Has not something like this already occurred as our technology reduces the entire planet to the scope of a very small global village? In terms of the accessibility of all knowledge of all cultures, are we not experiencing the earth as a single campus? Has not the interplay of information on that global campus become both humanly and commercially the main business of the world?

I am suggesting that as simultaneity of information structure substitutes insight for point of view and active participation for passive consumer appreciation, not only do the subjects disappear from the curriculum, but all the familiar boundaries and spaces between social groups and even age groups disappear. Education ceases to be a processing of the young for adult tasks and becomes the total lifetime task of all members of the community. The specter of the workless society is a mirage bouncing off the vanishing form of the mechanical age. In the electronic era which succeeds the mechanical age, the real work of mankind becomes learning and teaching in a timeless process of exchange and enrichment by the human dialogue.

Chapter 4

Knowledge & the Curriculum

Alice Miel

FIRST grade children attending school on the south shore of Long Island were looking at a map of the United States. How familiar they seemed to be with this tool. "There's the Atlantic Ocean," said one, pointing to the correct location. The teacher decided to probe a little. "Where would the Atlantic Ocean be from our classroom?" she asked. No one knew. All of the children had "been to the beach" many times and had driven along "the shore," but not a child was aware that in doing so he had been looking out on the Atlantic.

This story is told not to express shock at what these young children did not yet know, but to illustrate the quality of knowing which one teacher was concerned with developing. It is most likely that this insightful teacher went on to help her children build the missing connections between fragments of knowledge, for helping young people to know more and to have new ways of seeing was her profession just as it is a major responsibility of all teachers at every level of organized education.

Every educator wants children and youth to become more knowledgeable, but there are so many things to know and so many ways of knowing that puzzling questions arise at every turn. Seldom is the teacher's problem as clear and simple as connecting a real ocean just down the street with a symbolized one. In his sophisticated analysis, McLuhan presents problems that not only are difficult but are quite outside the awareness of many in our profession.[1] And, significant as they are, the challenges which McLuhan gives us are not the only ones to be considered in developing knowing individuals.

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[1] Extremely helpful in suggesting various interpretations and implications of the McLuhan essay were Louise Berman of the University of Wisconsin, Milwaukee; Dwayne Huebner and Robert E. Shafer of Teachers College, Columbia University, New York; and Frances Minor of New York University.

Let us mull over McLuhan's ideas for a while and then turn to other opinions relating to ways of knowing in our time.

Comments on the McLuhan Essay

McLuhan is writing about information movement, past, present and future. He is deeply immersed in the history of communication and from this perspective shares his view of the revolution in communication which began with the discovery of electromagnetic waves over a century ago.

Disadvantages of a Print Culture

Basic to everything McLuhan writes is his conviction that Western man is a victim of print culture; that is, that our perceptions and modes of awareness have been so shaped by books that we have difficulty in comprehending and learning through other media. In another piece of writing, McLuhan elaborates upon some of the ideas he has introduced in this yearbook.[2] Both the article and the preceding chapter contain so many sharp contrasts that they invite the creation of a chart (Table 1).

Table 1. Forms of Organizing Knowledge and Experience

In a Print Culture	*In a Culture with Electronic Movement of Information*
A Renaissance perspective. Visual organization. A spectator's point of view (from a fixed position).	Field forms of experience and perception (field of inclusive awareness, field of simultaneous relations).
Enclosed or pictorial space.	Auditory space, without center or margin, containing nothing and contained in nothing.
Uniform, repeatable (potent typographic) image. Information moved in single planes, in successive order. Mechanical procedure of one thing at a time. Analytic isolation of functions.	Simultaneous information coverage moving from every direction at once (just as sound is heard from above and below and behind and in front, all at once).
Lineal patterns of sequential arrangement of data (the package, the capsule, the prefabricated image).	Ecological and nuclear models of perception. Mosaic patterns of discontinuous lines creating systems for depth experience and participation on the part of the spectator (as with the newspaper, modern poetry and music, and nonrepresentational art).
Consumer values. Matching.	Producer values (audience in role of creator). Making.

McLuhan seems to want us to recognize the price paid for lineality. "Depth or structural knowledge" was abandoned, he tells us, when Western man obtained "an eye for an ear," dialogue was suppressed, insight was replaced by a single point of view, and "participational forms" were submerged. He uses the interesting term *outering* in describing the peculiar blinders we wear. When he writes of the "outering or transfer of our senses and faculties into material technologies," he seems to be saying that we have moved the point of perception away from ourselves and *out* there where the device is operating.

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[2] Marshall McLuhan. "A Fresh Perspective on Dialogue." *The Superior Student* 4: 2-6; January-February 1962.

It may be a book that is extending our perceiving or it may be a radio receiver or a motion picture film. When it is primarily the eye that is outered, the ear and other sense organs tend to be closed off in favor of this stepped-up means of visual perception. If this outering takes the form of print with a lineal arrangement of ideas, the seeing is held within further limits. While human beings are thus enabled to see certain relationships, particularly the "mechanistic sense of causal relations so necessary to the order of our lives," they are prevented from seeing certain other relationships and the "entire interplay among experiences."

Advantages of a Print Culture

The very disadvantages just described have their corresponding advantages. Throughout his chapter, McLuhan shows the accomplishments of science and industry and education in a literate world. It is possible to make certain inferences also from the disadvantages he points out for the individual in a nonprint culture. He refers to the "utter inhibition and suppression of his [the native's] mental and personal life which is unavoidable in a nonliterate world" and to the power of words "to impose their assumptions relentlessly." So long as words are lent authoritative meaning through being uttered (outered) by a powerful person, they cannot be made tools for an individual to achieve a "meaningful integration" of his own experience. Once words are divorced through print from the person of the user, they lose their magical powers and become available as instruments of individual thought.[3] The result is the "open society" known and valued in the Western world.[4]

Quite clearly, books have made widely accessible the thoughts of men and women growing up in different cultures and different periods of time. In many ways, print makes the individual independent of a teacher, for he may cover material at his own rate, repeat the exposure as often as he wishes, and when and where he pleases. As McLuhan and others have observed, the printed book is a "teaching machine."

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[3] The characteristics of the oral tradition and its impact on personality development are treated at further length by Robert E. Shafer. "The Communication Revolution and Learning." *Learning More About Learning.* Washington, D.C.: Association for Supervision and Curriculum Development, 1959. p. 38-54.

[4] Karl R. Popper contrasts the closed society, characterized by "submission to magical forces," with the "open society" which "sets free the critical powers of men." *The Open Society and Its Enemies.* Princeton, New Jersey: Princeton University Press, 1950. p. 3.

A Proposed Shift in Education

In another article McLuhan describes a classroom in Shakespeare's day, a century after the invention of printing.[5] There grammar school children were still being required to put down the text as the teacher gave it out and also to write down the teacher's comments on the text. Thus, each child wrote from dictation not only his own textbook but his own dictionary, his own grammar, and his own rhetoric.[6]

It is understandable that McLuhan might wonder whether there will be a similar lag in use of modern technologies in education. It is improbable, however, that he would advocate throwing out the book, even though the revolutionary TV image is now available as a medium of education. As we have seen, he has acknowledged the usefulness of the printing press. Even if it were possible to return to a preliterate culture, he would hardly suggest that we place ourselves once more at the mercy of the spoken word alone. With television so widely prevalent in the world, the demagogue already has an extended audience. Without the printed word as an avenue for criticism, the forces of reason would be at a disadvantage. The task of modern man, McLuhan would surely agree, is to capitalize on the advantages of each form of communication, while attempting not to misuse or overuse any one form.

Shafer sees the school as helping with this process:

> In striving to achieve a balance between the oral and written traditions in an age of post-literacy, we may conceive the school as a great communication laboratory where students receive information and learn to organize it and evaluate it as well.[7]

For the school to serve as such a laboratory not only would help society to learn to live with both the oral and written traditions, but it would help to close the gap which McLuhan sees between the new TV generation and its educational programs. In other words, the purpose would be to increase the efficiency of education through a multiple-media approach much as Edgar Dale has been advocating for years.

Another responsibility of the school, to use Shafer's words, is to recognize the new media as "art-forms worthy of study and analysis." We should help young people to become critical users of the new media, just as in the past we have worked for critical reading of print. This would include developing awareness of kinds of knowledge to be secured from each channel of "information movement." So long as we are highly print bound, our ways of perceiving our world and of helping our students to see their world are affected. The preceding chapter and McLuhan's article, "A Fresh Perspective on Dialogue,"[8] present several contrasts between education as it frequently turns out to be under the influence of a lineal movement of information and that which would be possible were we to take advantage of simultaneous modes of information movement. These contrasts have been brought together in Table 2. (The words are McLuhan's with the exception of bracketed material.)

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[5] Marshall McLuhan. "An Historical Approach to the Media." *Teachers College Record* 57: 104-10; 1955.

[6] Similar practices can be found in certain areas of the world today, five centuries after the invention of printing.

[7] Robert E. Shafer, *op. cit.*, p. 54.

Table 2. Nature of Education

In a Print Culture	*In a Culture with Electronic Movement of Information*
Consumer assumption of learning. "Reading maketh the full man" (Bacon). Education a guided tour of knowledge with stress on appreciation. Coverage, survey, or course as common images. Mere briefing session or lecture.	Casting the learner in the role of explorer and discoverer. [Since exploration and discovery can be and sometimes are used in schools in a print culture, perhaps this should be amended to read: Transformer and user of information from several sources. Transaction assumption of learning.]
Teacher as center, learner as margin.	Both teacher and student as centers in interaction or in a dialogue.
Relaying of information from center to margin.	Learning as a perpetual process of discovery for both. [Perhaps, better, exchange of information between centers with continual restructuring of perceptions of both.]
Center of learning a processing plant for getting ready for adult life. Educational process geared to the young—great gap between the world of learning and the world of action. Education an industrially oriented task of homogenizing and processing the heterogeneous urban masses.	Center of learning a live model of the human dialogue itself, as it engages with the most ancient and the most immediate problems.
Visual approach requires neither depth nor relatedness, insists upon a tidy system. Traditional curriculum with numerous segments and over-all visual order of knowledge—belongs with the assembly line.	Education favorable to dialogue or to interplay and its ensuing insight. Has meant insistence upon depth, interrelatedness, and comprehension. [Place for ambiguity and/or untidiness.]
Never sought unity of knowledge. Dialogue closed off by specialism. Indifferent to interplay of various kinds of knowledge.	In dialogue can discover that any subject matter, when handled in depth, strikes the central spring of the unity of knowledge.

[8] See footnote 2, p. 72.

McLuhan has done us a service in hammering home so forcefully the nature of the shift in thinking necessary for escaping from the prison of being print bound. He also has called attention to flaws in the way knowledge has usually been ordered and packaged for use in organized education and in showing what we might do instead. Some of these points we shall return to later in the chapter.

Two Further Comments on the McLuhan Essay

For the present let us examine but two further thoughts in reading McLuhan and then move on to what others are now saying about knowledge. The first caution relates to McLuhan's enthusiasm for television as a medium of information movement. The second relates to where his chapter leaves us with respect to knowledge and the curriculum.

Television as a communications medium. McLuhan does not make explicit any limitations of television. He depicts it with all the virtues of simultaneity and none of the hazards of lineality. "The TV image is not a shot, nor a view of anything," he has written, "so much as an experience . . . an intense experience of structure and interrelation of form." He believes that the TV image is "the first technology by which man has outered his haptic, or tactile, powers. . . . [This] tactile image involves not so much the touch of skin as the interplay or contact of sense with sense, of touch with sight, with sound, with movement. . . . our age-old separation of senses and functions terminates."[9]

It is easy to see that the television screen calls on more of the senses at any one time than does any other technology to date. It would be a mistake, however, to assume that television viewing does not as a general rule promote a certain amount of lineal information movement, in a repetitious form at that.

In commercial television the least useful pieces of information (the virtues of competing cleansing agents and tobaccos) are repeated endlessly and easily overlearned. Other messages come past just once at a given speed and cannot be held up or repeated regardless of need. Surely this is information movement from center to margin.

Commercial television gives out an abundance of unsorted information. The viewer cannot sort wisely unless he knows what he is sorting and what he is sorting for. Having to work from an image that does not stand still makes it even harder for the young person to discover patterns and create his own organization of information. (From this standpoint the map, the chart, the still picture, and the newspaper have a tremendous advantage for learning to deal with simultaneity in communication.) Perhaps it is most accurate to say that the simultaneity of television is accompanied by a type of lineality without benefit of well organized sequences except in the best examples of educational TV. This does not deny the educational potential of television but only confirms the thesis of McLuhan and Shafer that organized education should help children learn how to learn through this ubiquitous medium. Furthermore, the profession is challenged to make creative use of educational television.

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[9] See preceding chapter.

While the touch of the "scanning finger" can transport the viewer in a second from one time-space category to another and while the pictures moving on the screen provide contrasts in size and shape and give some illusion of depth, they are after all flat, almost as flat as print. They do not have texture and they are not to be confused with reality. On this point Barrett writes:

> The last gigantic step forward in the spread of technologism has been the development of mass art and mass media of communication: the machine no longer fabricates only material products; it also makes minds. . . . When an eclipse of the moon was televised some years ago, E. B. White wrote in *The New Yorker* that he felt some drastic turning point in history had arrived: people could have seen the real thing by looking out of their windows, but instead they preferred looking at the *reflection* of it on the screen. . . . We . . . have fabricated for our time a new kind of abstractness, on a mass scale; through our extraordinary mastery of technique we provide a ready-made reflection in place of the real. . . .[10]

Even the advantage of simultaneity has its potential dangers. For example, if a child is shown a filmed closeup of an egg just coming out of a hen, and immediately thereafter sees a second egg coming out of what might well be taken as the same hen, he may easily get the wrong idea of the length of time this process takes. Children so easily juxtapose things that do not belong together and are so easily confused about time and other relationships, that we can take nothing for granted as we watch them before a television set.[11]

As far as children are concerned, commercial programs currently do little to promote knowledge. A recent study led to the conclusion that "more than 91 percent of the fare offered for children at the present time is designed to make them laugh or cry." [12] Out of the thousand hours of monthly network programming analyzed, it was found that only six-tenths of one percent was designed to appeal to, stimulate or challenge children's minds.

[10] William Barrett. *Irrational Man.* Garden City, New York: Doubleday and Company, 1958. p. 239.

[11] Seven-year-olds recently studied by Dorothy Mugge did not show the sophistication some have assumed for modern children. *Social Studies Information of Beginning Second-Grade Children.* New York: Teachers College, Columbia University, 1962. Doctor of Education Report; microfilm.

[12] Robert Saudek. "Must It Be 'Kooie' and 'Ka-Pow'?" *New York Times Magazine.* March 26, 1962. p. 53.

One further caution with respect to television, as with any medium for transmission of information, is that it should not be counted on to promote active involvement by itself.[13] Perhaps it has helped man to "rediscover the primacy of dialogue and interplay of mind as indispensable to insight," as McLuhan claims, but, if so, this effect would seem to depend upon occasional demonstrations of dialogue functioning in this way rather than on active dialogue growing out of viewing. There is likely some effect on behavior from having a live model dramatically showing a variety of relatively simple skills in operation (how to spread a sandwich, how to greet guests, or how to act when one has won or lost a contest). It would be interesting and useful to study the effect on such a complicated operation as dialogue.

It would be useful also to have more research findings on the relative merits of different media for different purposes. For example, may radio be superior to television for mass distribution of art lessons to schools if creativity is valued? Will children find it easier to use their own imagination if they receive directions and suggestions orally but do not have a single visual model to imitate? What happens if multiple visual models are introduced? For teaching something like the nature and sounds of different musical instruments, will television have the edge?

McLuhan recognizes the possibility that any new medium brings with it its own kind of closure. The purpose of raising the foregoing questions with respect to television is to remind us all once more that we can guard against the bias of any medium only if we are fully aware of what that bias is.

This is as true for television as for print. This is no doubt what McLuhan had in mind when he wrote, "We can deliberately pattern our cultures today by altering the mix of components with their attendant 'closures' or effects on our outlook and desires and goals." [14]

Where the McLuhan essay leaves us. The chapter seems to deal only with movement of information, giving little attention to uses of information. We cannot expect everything to be covered in one short piece and the message McLuhan has delivered is a strong one. It would be fair to say, however, that he has not dealt directly with education for using knowledge. Therefore, let us now examine another prominent development to see what it may add to our insights.

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[13] Division of Audio-Visual Instruction. *Interaction in Learning: Implications for Television.* Finette P. Foshay, editor. Washington, D.C.: National Education Association, 1959.

[14] See preceding chapter. McLuhan has developed in more detail the difference he sees between television and films and between television and print in "Electronics and the Changing Role of Print." *Audio-Visual Communication Review* 8: 74-83; 1960.

Direct Attention to the Disciplines

What knowledge to select and how to package this knowledge for the instruction of the young have been a concern of educators for as long as education has been conceived as a deliberate process. Today, for a variety of complex and interrelated reasons, there is unusual and widespread concern with the problem of organizing knowledge for teaching. Most notable is the attention being given to the matter by representatives of the scholarly disciplines. Not only are they examining the nature of knowledge in their fields but they are preparing outlines of content and materials for use in elementary and secondary schools. A disciplines seminar, convened at the NEA Center in June 1961, is called unique in that "it caught the ground swell of spreading interest in the disciplines. . . ."[15] A political scientist at the seminar is quoted as saying that political science must now join mathematics, science and geography as a contender in the elementary school program.[16] He failed to note that economics and physics also are strong contenders for space in the same program.

Just one year before the disciplines seminar, Bruner published an immensely readable and deceptively simple book in which he emphasizes the importance of producing understanding of the structure of a subject. "To learn structure . . . is to learn how things are related," he states in explanation.[17] He makes other references to structure when he writes of broadening and deepening knowledge in the form of "basic and general ideas" and mentions the "basic or underlying principles of various fields of inquiry."[18] There is no doubt that this book has contributed to the deepening interest in the place of the disciplines in the curriculum.

McLuhan gives credit to Bruner for an "account of the structural approach as one involving depth awareness of a simultaneous field of relations." It is clear, however, that Bruner is referring to the structure of a subject and may well have been suggesting mere categorizing and restructuring that subject by more complex lineal arrangements. If so, there is a real difference between his views of structure and those of McLuhan, who sees the possibility in this postliterate world that the "unity of human culture and experience [may] become manifest as a single spectrum" with subjects disappearing from the curriculum.

In any case, in considering proposals with respect to the disciplines, it is advisable to keep certain guidelines in mind.[19]

[15] National Education Association. *The Scholars Look at the Schools.* Washington, D.C.: the Association, 1962. p. 1.

[16] *Ibid.*, p. 42.

[17] Jerome S. Bruner. *The Process of Education.* Cambridge, Massachusetts: Harvard University Press, 1960. p. 7.

[18] *Ibid.*, p. 17-18.

[19] The suggestions of Arno A. Bellack and Arthur W. Foshay of Teachers College, Columbia University, have been especially helpful in this connection.

1. There is no general agreement on what a discipline is. Phenix defines it as "knowledge organized for instruction," which would seem to equate a discipline with a school or college subject.[20] Others use the term to signify field of inquiry or creativity. (This is the view taken in the final section in this chapter.) A third view includes applied fields like medicine and journalism.

There is a still greater problem when it comes to deciding what disciplines shall be included in the school curriculum. The disciplines seminar, to which reference has already been made, was organized to deal with the following areas: in the humanities—art, music, English, foreign languages, philosophy, and religion; in the physical and biological sciences and mathematics—mathematics, chemistry, physics, and biology; in the social sciences—sociology, communications, geography, economics, history, political science, and psychology. This list will bother some for what it includes as disciplines. Other areas were omitted because invited representatives were unable to attend.

2. It is idle to assume that the scholars in a field like physics or biology can easily agree on one structure for their field. Furthermore, ways of structuring a natural science are not likely to be suitable for the arts and the humanities or even the behavioral sciences. Schwab points out the existence of at least three great genera of disciplines: the investigative (natural sciences), the appreciative (arts), and the decisive (social sciences).[21]

Broudy arrives at five groupings of disciplines by classifying them with respect to the role played in the totality of knowledge:

> a. Bodies of knowledge that serve as symbolic tools of thinking, communication, and learning. These include the language of ordinary discourse, of logic, of quantity, and of art. . . .
>
> b. Bodies of knowledge that systematize basic facts and their relations. These disciplines [the basic sciences] give us a way of speaking and thinking about the world and everything in it; a way structured by the conceptual system that characterizes each discipline. . . .
>
> c. Bodies of knowledge that organize information along the routes of cultural development. History, biography, and evolutionary studies served this purpose by giving some kind of order to the past. . . .
>
> d. Bodies of knowledge that project future problems and attempt to regulate the activities of the social order. Tykociner [to whom Broudy gives credit for this way of classifying the disciplines] cites agriculture, medicine, technology, and national defense as examples of the former, and political science, jurisprudence, economics, and management as examples of the latter. We have also

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[20] Philip H. Phenix. "The Disciplines as Curriculum Content." *Curriculum Crossroads.* A. Harry Passow, editor. New York: Bureau of Publications, Teachers College, Columbia University, 1962. p. 58.

[21] Joseph J. Schwab's remarks are summarized in *The Scholars Look at the Schools.* National Education Association, *op. cit.*, p. 3.

developed sciences to guide dissemination of knowledge, *e.g.*, education, mass communication, journalism, library science, custodianship of records and relics.

One may also mention here what Tykociner called "zetetics," the science of research, or better, the sciences that sustain and promote research. . . .

e. Finally, there are integrative and inspirational disciplines which create syntheses or value schema in the form of philosophies, theologies, and works of art. . . .[22]

For the fifth category Broudy recommends the "exemplar approach: a careful study of a small number of examples of great books, great works of art, and systems of ideas." This approach, as he points out, is considerably different from the structural, developmental, and thematic (or problem) approaches which would be employed in relation to the foregoing groups (b), (c) and (d), respectively. The purpose of his suggested classification is to exhibit "the enormous range and complexity of human knowledge" and to show "the futility of trying to find an adequate sample of it that can be studied structurally as separate subjects in Grades 7-12."

The report of the disciplines seminar at which Schwab spoke represents the attempt of individual academicians to give brief characterizations of the essential nature of their respective fields. Work done by economists through the Joint Council on Economic Education for the past ten years in delineating their domain has put the field of economics far ahead of other disciplines in that respect.[23] It will probably be some time before such carefully distilled key concepts will be available for most other disciplines.

Concern for Dynamics of a Field

3. Knowledge of structure, conceived as a set of interrelated principles in current good standing in a discipline, is abstract and static knowledge. While such knowledge, even though static, is preferable to isolated bits of information lacking any system of organization, it stops considerably short of being the essence of a field of knowledge. The *dynamics* of a field, which would constitute the means of continuing inquiry, is to be found in the key questions of concern to scholars in that field, in the methods or rules according to which data are sought and handled, and in the language and other symbolic tools employed. According to Foshay,[24] any discipline also has a history, or a tradition,

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[22] Harry S. Broudy. "To Regain Educational Leadership." *Studies in Philosophy and Education* 11: 132-58; Spring 1962. p. 152-54.

[23] See the report of the National Task Force on Economic Education. *Economic Education in the Schools.* New York: Committee for Economic Development, 1961.

[24] Arthur W. Foshay. "Discipline-Centered Curriculum." *Curriculum Crossroads.* A. Harry Passow, editor. New York: Bureau of Publications, Teachers College, Columbia University, 1962. p. 68.

which enters into decisions on the domain and the rules. Learning the structure of a discipline, while useful, is not enough; it stops with learning the results of someone's work without having the basis for understanding changes already in the making. The central question for the student is, rather, how was this structured knowledge arrived at—what was the structure of inquiry?

4. Even though a structure may be agreed upon for a discipline, it is not likely to persist unchanged. Schwab makes a useful comment on this point.[25] As digested in the seminar report, his argument runs as follows:

> It is to identify the durable aspects—durable from the standpoint of imparting both knowledge and skills—that we must examine the structures of the various disciplines. The durable aspects undoubtedly constitute the warp and woof of "education that frees the mind." They constitute also a paradox in that, verities though they are, they are characterized by constant shift and change.

Schwab is then directly quoted as follows:

> . . . the logical forms, the conceptual structures . . . [of] the disciplines are themselves corrected continuously by a reflexive examination of the very knowledge, decision, or art work they produce; that is, they lay the ground for their own demise and replace themselves.

5. He who reads Bruner on the run may miss all the cautions introduced in the chapter on "Readiness for Learning."[26] When used as a noun, the word *structure* may easily be thought of as a thing, stripped bare of facts, that can be packaged and handed to someone else. We can no more deliver to a young person a ready-made and full-blown structure of a discipline than we can hand him directly any other type of conceptualization.

Vygotsky realizes the complexity of the learning called for:

> At any age, a concept embodied in a word represents an act of generalization. But word meanings evolve. When a new word has been learned by the child, its development is barely starting; the word at first is a generalization of the most primitive type; as the child's intellect develops, it is replaced by generalizations of a higher and higher type—a process that leads in the end to the formation of true concepts. The development of concepts, or word meanings [or *structures*, we might well insert] presupposes the development of many intellectual functions: deliberate attention, logical memory, abstraction, the ability to compare and to differentiate. These complex psychological processes cannot be mastered through the initial learning alone.[27]

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[25] National Education Association, *op. cit.*, p. 3-4.

[26] Jerome S. Bruner, *op. cit.*, Chapter 3.

[27] L. S. Vygotsky. *Thought and Language*. Published in Russian in 1934. Edited and Translated by Eugenia Hanfmann and Gertrude Vakar. New York and London: Published jointly by the Massachusetts Institute of Technology Press and John Wiley and Sons, 1962. p. 83.

Vygotsky adds that a teacher who tries direct teaching of concepts usually accomplishes nothing but empty verbalism, "simulating a knowledge of the corresponding concepts but actually covering up a vacuum."

Oversimplification of the process of concept formation is perhaps what Schwab has in mind when he refers to "romantic notions" held by some scholars in the disciplines today,[28] about the intellect and what can be done for it.

It is more accurate to think in terms of structure-finding as one activity in the process of education. It may be even better to express this idea by the words *ordering* and *patterning* as part of what Randall calls a search for intelligibility.[29] Educators will be on safe ground with respect to "teaching the structure of a subject" only if they help pupils to arrive at the structure of various disciplines and the interrelationships among them through a gradual buildup over time.

Levels of Sophistication

6. Another caution has to do with the level of sophistication to be aimed at in education with respect to the disciplines. Programs for the preparation of specialists in various fields differ from those designed to educate nonspecialists with respect to those same fields. Broudy suggests that the various domains of knowledge be regarded as several kinds of maps. With respect to general education for "political wisdom," he writes:

> Now clearly the citizen, unlike the specialist, cannot utilize a highly detailed map written in a complex code. . . . Nevertheless, a map can be accurate and helpful even if much of the detail is omitted. For the citizen, therefore, the kind of knowledge needed is like that afforded by clear, large, outline maps on which a social problem can be plotted and its essentials put into focus. This sort of knowledge we derive from "general studies." [30]

At another point Broudy contrasts knowledge of and knowledge about a field. Both kinds of knowledge are the responsibility of organized education. The former type of knowledge, appropriate for the specialist, is secured from teaching a young person to "think like an historian" or "think like a sociologist." Knowledge about a field appropriate for the nonspecialist comes from a type of general education that uses various means of helping students to grasp the basic conceptual schemes of a discipline and to come to understand how the field has developed and where it is going. Toward this end, some experience in the rediscovery (or perchance discovery) of knowledge, using the methods and tools of the scholar in a particular field, is useful as one way of building an understanding of how such a specialist thinks.

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[28] National Education Association, *op. cit.*, p. 3.

[29] John Herman Randall, Jr. *Nature and Historical Experience*. New York: Columbia University Press, 1958.

[30] Harry S. Broudy, *op. cit.*, p. 143.

It is impossible for an individual to go deeply into many disciplines, but general education can at least help people in different fields to be able to talk with one another.

7. Becoming enamored of the idea of teaching the structure of a subject may lead to emphasizing the fields most easily structured, mathematics and science. This, in turn, often leads to an emphasis on education relating to production of knowledge and a neglect of education for knowledge consumption, for it is the mark of a science that it is knowledge producing but not concerned with any use of the knowledge produced except for continued exploration in the field. After we have the best information we can get from a scientist as to the likely consequences of this or that course of action, social policy questions remain. What course of action should be taken? We need a disciplined way of dealing with social policy questions, where values must be applied and strategies worked out, but no such discipline exists.[81]

Two difficulties arise from failure to consider the problem of knowledge "consumption," as contrasted with knowledge production. The first is a problem of motivation. The assumption appears to be that the excitement of learning more about a field is motivation enough, and so it may be for some students. It is true that "competence motivation" and an "intrinsic need to deal with the environment" have not been counted upon sufficiently by even the proponents of a subject-centered curriculum.[82] They have frequently failed, therefore, to make pursuit of a subject exciting in its own right. As Foshay notes,

> The difficulty with the old subject-centered school was that the subjects were not conceived as having intellectual merit, but only as preparation for some later period in life when intellectuality was to be pursued on its own terms.[83]

The pursuit of intellectuality on its own terms is of course to be provided for through organized education. However, it is unrealistic to rely at all times and for all students upon sheer interest in a discipline to make the effort of working with it seem worthwhile. Much of the time for most students it will be important that the discipline have patent and early usefulness. This was the point underlying the whole progressive education movement, but which had been stated even earlier by Dewey:

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[81] Feeling this lack, which philosophy does not quite manage to fill, a group of educational philosophers some 20 years ago propounded a "discipline of practical judgment." See: R. Bruce Raup and others. *The Discipline of Practical Judgment in a Democratic Society*. Yearbook 28, The National Society of College Teachers of Education. Chicago: University of Chicago Press, 1942. Harry S. Broudy also addresses himself to this problem, *op. cit.*, p. 137-48.

[82] R. W. White. "Motivation Reconsidered: The Concept of Competence." *Psychological Review* 66:317-18; 1959.

[83] Arthur W. Foshay, *op. cit.*, p. 71.

> That education which does not occur through forms of life, forms that are worth living for their own sake, is always a poor substitute for genuine reality, and tends to cramp and to deaden.[illegible]

Forty-one years later Dewey still held to this principle that students must be able to see the relevance of what they are studying:

> Anything which can be called a study, whether arithmetic, history, geography, or one of the natural sciences, must be derived from materials which at the outset fall within the scope of ordinary life-experience.[illegible]

It is this line of reasoning which has accounted for the wide appeal of the idea of a problem-centered curriculum, through which a need to consult different fields of knowledge emerges.

A problem-centered curriculum has promise in relation to the second difficulty relating to education for knowledge consumption. This difficulty is that skill in using or applying knowledge does not come automatically with acquisition of knowledge. As Broudy puts it:

> In addition to familiarity with the terrain of the major disciplines, the political thinker also requires the art of adjusting perspective. By this I mean the art of ascertaining the import of particular events for the human enterprise as a whole. In the mature human being, the reference frame for such judgments is a hierarchical value set together with principles and rules that allow him to make a logical connection among values, policies, and proposals for action.
>
> Finally, the grids of knowledge and maps of value have to be combined by the processes of deliberation, decision, and commitment. . . .[illegible]

With these words, Broudy spells out the "discipline of practical judgment" mentioned earlier. Development of such a set of skills is something to be attended to as deliberately as the development of knowledge itself.

Usefulness in Curriculum Organization

8. How best to organize the curriculum has long been a moot point. Those who today advocate teaching the logical structures of the disciplines have not discovered any new magic. While Dewey throughout his career insisted on "materials which at the outset fall within the scope of ordinary life-experience," he consistently urged "progressive organization of subject matter":

[illegible] John Dewey. "My Pedagogic Creed." *The School Journal* 54: 77-80; 1897.

[illegible] John Dewey. *Experience and Education.* New York: Macmillan Company, 1938. p. 86-87. Printed by permission of Kappa Delta Pi, owners of the copyright.

[illegible] Harry S. Broudy, *op. cit.*, p. 144.

> . . . the organized subject-matter of the adult and the specialist cannot provide the starting point. Nevertheless, it represents the goal toward which education should continuously move.[37]

Bode also made a plea for beginning with a "psychological order" of subject matter but ending with a "logical order." [38]

Lucy Sprague Mitchell, while advocating a laboratory approach to discovery of relationships in the field of geography, nevertheless made a clear delineation of the essential nature of that field.[39]

Somehow it has always been easier for the mature adult who knows the logical structure of a subject to begin with that structure in trying to educate the young, and none of these writers minimized the difficulty of psychological or laboratory approaches. Today's interest in teaching the structure of the disciplines does not necessarily mean a return to teaching the subject in a "logical" order without regard to the student, but the temptation to do so will persist.

9. Bruner does not propose in his *Process of Education* any attention to interrelationships among disciplines, and he does not address himself to the question of the structure of the curriculum as a whole within which the fields of knowledge are to find their place. In speaking of the structure of philosophy, Phenix stresses the skill of synthesis, the ability to combine relevant parts of various fields of knowledge.[40] He suggests that another dimension be added to the learning process, a dimension covering the integrative aspects of knowing. While integration is far from a new term in education, it is becoming increasingly clear that the profession must take a new look at that concept along with new attempts to deal with separateness in fields of knowledge.

As Goldberg writes, "What the profession needs are lively and persistent enquiries, on the level of conceptualization related to wholes, wholeness, and the making of wholeness. . . ." [41]

Foshay has a proposal for integration of the curriculum which he gives after his comment on the difficulty of the older subject-centered school already quoted:

> The difficulty with a problem-centered approach used as the only approach to the selection of curriculum content is that the problems as they come are not disciplined, nor do they ordinarily lead us to an understanding of the disciplines through which human truth is developed or discovered. An approach

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[37] John Dewey. *Experience and Education, op. cit.*, p. 103.

[38] Boyd Bode. *Modern Educational Theories*. New York: Macmillan Company, 1927. p. 65.

[39] Lucy Sprague Mitchell. *Young Geographers*. New York: John Day Company, 1934.

[40] National Education Association, *op. cit.*, p. 16.

[41] Maxwell H. Goldberg. "General Education and the Explosion of Knowledge." *College and University Bulletin* 14: No. 9: 1-4; February 15, 1962. p. 4.

through one discipline at a time alone would not be adequate, since practice in problem solving is also necessary. We have to have it both ways—both problem-centered and discipline-centered, if you please—if we are to produce students who, at the same time that they think, are fully aware of the intellectual processes that they themselves are using.[60]

How to "have it both ways" may be analogous to the dilemma posed earlier—how to maintain the advantages of the lineal approach of a print culture without being incapacitated for coping with the simultaneity of a postliterate world.

Going Beyond the Lineal in the Curriculum

Is there a possibility of abandoning "either-or" approaches to curriculum organization? Can we approach the curriculum as being *both* problem-centered and discipline-centered? If so, what is a promising line of solution? Dewey and Bode would have had it both ways by starting with one type of organization and ending with another, presumably within each major segment of experience. Many others have adopted the easy solution of assuming that the elementary school would employ in general a psychological approach while the secondary school would deal primarily in logically organized subject matter. Foshay seems to suggest carrying along two approaches at the same time, but he has left the details undeveloped. Clearly some rather specific proposals are needed.

Building on the foregoing critique of suggestions that we "teach the structure of the disciplines," insights obtained from the McLuhan material, and on other analyses of ways of knowing, the writer presents in the remainder of this chapter the chief features of one rather comprehensive proposal for going beyond the lineal in the curriculum. As might be expected, there is more than one sense in which we may view the curriculum as both problem-centered and discipline-centered. Therefore, the proposal includes several facets. The part which deals with the place of the disciplines in the curriculum is elaborated in the most detail and is reserved until the end.

Two Ways of Using Language

Education is a compressing and channeling of existence; the purpose of this process is to develop the art of utilizing knowledge, to help the individual to be a transformer of information. Language plays a key role in education since only through words can knowledge be manipulated and criticized and perceptions shared. McLuhan makes the point that language is "one medium which is simultaneously an extension or 'outering' (uttering) of all our senses and faculties."[43]

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[60] Arthur W. Foshay, *op. cit.*, p. 71.

Randall discusses the thesis that language is "the most potent instrument of manipulation the mind of man has ever devised." He states:

> Through language alone can man free himself from the tyranny of the actual, and explore what Morris Cohen liked to call the range of possibility. Through the art of language man can manipulate the natural structures and relations he encounters, reconstruct them, and translate them into thought and knowledge. Through language man can lift himself above animal existence, look after and before, and survey the world from innumerable fresh perspectives.[44]

Randall seems to be describing the twin processes of creativity (the making of newness) and criticism (the art of judging—the method of comparing the "is" and the "ought to be" that leads to innovation). Criticism, especially, depends upon precision through agreed upon uses of words, an achievement, already noted, of a literate society.

Discursive use of language. Use of language in a semantically precise or referential way is referred to by Susanne Langer as a discursive mode of symbolization. In an interpretation of Langer, Shoemaker writes:

> Discursive symbols provide correlation between names and things and between concepts and things. They are verifiable and duplicable; they conform to the laws of syntax or of mathematics. They may be understood serially.[45]

While semantic precision is an advantage of language, it is at the same time a disadvantage, as Schachtel states so succinctly:

> In learning the mother tongue, the child on the one hand gets acquainted with the richness of its environment, but on the other hand it has to sacrifice for the newly gained social perspective of language a great deal of its own direct, creative perspective on the objects of the environment. . . .[46]

Schachtel goes on to discuss how language can operate in such a fashion as to close off the world:

> The word, of course, never can take the place of the object or the quality or the activity which it designates or indicates. But, most of the time, when we listen to the spoken or read the written word, we neither perceive nor imagine the referent of the word but are in contact only with the words (or concepts). . . . More often than not, the speaker or writer who uses these words is also in contact only with them and not with the objects which they desig-

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[43] Marshall McLuhan. "A Fresh Perspective on Dialogue." *The Superior Student*, *op. cit.*, p. 5. Used with permission of the Inter-university Committee on the Superior Student, University of Colorado, Boulder.

[44] John Herman Randall, Jr., *op.cit.*, p. 140-41.

[45] Francis Shoemaker, "Communication Arts in the Curriculum, Some Educational Implications of the Philosophy of Susanne Langer." *Teachers College Record* 57: 111-19; 1955.

[46] Ernest G. Schachtel. *Metamorphosis*. New York: Basic Books, 1959. p. 202-03.

nate. Used in this way, language bars the access to the world, obscures the objects. . . .[47]

There appear to be three ways out of the dilemma of language, a tool which may close doors as well as open them. None of these ways requires us to discard the social and educational usefulness of discursive language.

The first way is to use language creatively so that it does not close off or obscure. Schachtel calls this an evocative use of language:

> . . . language can be evocative of experience. . . . The way in which language is used can have a decisive influence on whether experiential communication takes place in which both people (speaker and listener, writer and reader) are in touch with the referent of the communication, or whether only words are exchanged and no experience is evoked. The evocative function of the language can be enhanced by avoiding clichés and by lifting words out of their most banal, current use and using them in a way that reveals their original meaning, or by using them in such combinations, images, positions as will conjure up most concretely the experience about which one is talking [illegible] writing.[48]

Only language freed from the rote meanings of the oral tradition is available for such creative use. But this advantage is clearly not automatic. To use language in this way requires deliberate attention and a wanting to know the world of people and things that is at the heart of Dwayne Huebner's discourse in Chapter 7.

Dialogue is a likely source of invention of new terms and revision of meanings of terms in current use, for dialogue can be deemed successful only if new meanings are being created in the transaction in which human beings are engaged and, thus, only if a common language for expressing these new meanings is continuously being established.

McLuhan elaborates on the importance of dialogue:

> . . . the dialogue as a mode of learning makes much sense to everybody. It is a way of tackling anything from multiple points of view at the same time. It is like a Picasso painting which offers in two dimensions the inside, outside, front, back, top, and bottom of any object. Dialogue is what Joyce called "an everyway roundabout with intrusions from above and below." It swarms over a problem. But, most of all, dialogue is a mode of learning by participation in which not only data but insight and discovery are the normal experience. It is like the learning of our mother tongue in which every word is both a fact and a discovery which involves the learner totally.[49]

Non-discursive use of language. If the process of creating new language is carried on by an individual doing a solitary piece of writing, he may use the well-developed craft of lineal exposition to make clear his intentions. Or he may deliberately choose to use language in his own way for his own purposes without feeling an obligation to define his terms or to present his ideas according to the grammar and rhetoric of lineality. The latter case represents a second way out of our language dilemma, a non-discursive use of language. Shoemaker explains this term as he continues his interpretation of Langer:

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[47] *Ibid.*, p. 188-89.

[48] *Ibid.*

[49] Marshall McLuhan. "A Fresh Perspective on Dialogue." *The Superior Student, op. cit.*, p. 4.

> Non-discursive symbols [language and other symbol systems], however, are neither verifiable nor duplicable, for they depend on personal perceptions at a given point in space-time. They are neither serial nor additive. . . . They do not represent actual experiential events or feelings; they do represent moving experiences in religion and myth, and ideas of feelings and illusions of virtual experience in the arts.[50]

Thus, while print may have encouraged lineal thinking, even the medium of print can be used in non-discursive (non-lineal) ways, a fact demonstrated years ago by Gertrude Stein.[51] Such writers recognize the limits of language so economically stated by Gibson:

> . . . language will never *say* our experience "as is" and recognizing this truth, we have immense freedom of possibility to make, create, form what we can out of words or out of anything else. . . . There remains this simple blasphemy of ignoring the limits, of assuming that one's words do indeed tell the reader what is going on.[52]

Gibson concludes his paragraph with the thought-provoking sentence, "There is an important sense in which nobody knows what he is talking about."[53]

Non-discursive language, which is most frequently employed in poetry, the novel, and drama today, provides a way of knowing which the logical structure of a lineal discipline cannot. To include in the curriculum experiences with both discursive and non-discursive language is one approach to a program that is both problem-centered and discipline-centered.

Broad Sources of Content

Non-discursive language has much in common with other non-discursive art forms—visual and plastic arts, the motion picture, music, myth, religion, and dance. To include in the curriculum experience with such art forms constitutes a different way in which we may have a dual approach in instruction. This suggests also a third possibility for keeping language available as a means of opening up the world. If we can manage not only to use language in fresh new ways but also to secure additional insights through the medium of other symbol systems, our language may retain much more vitality.

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[50] Francis Shoemaker, *op. cit.*, p. 113.

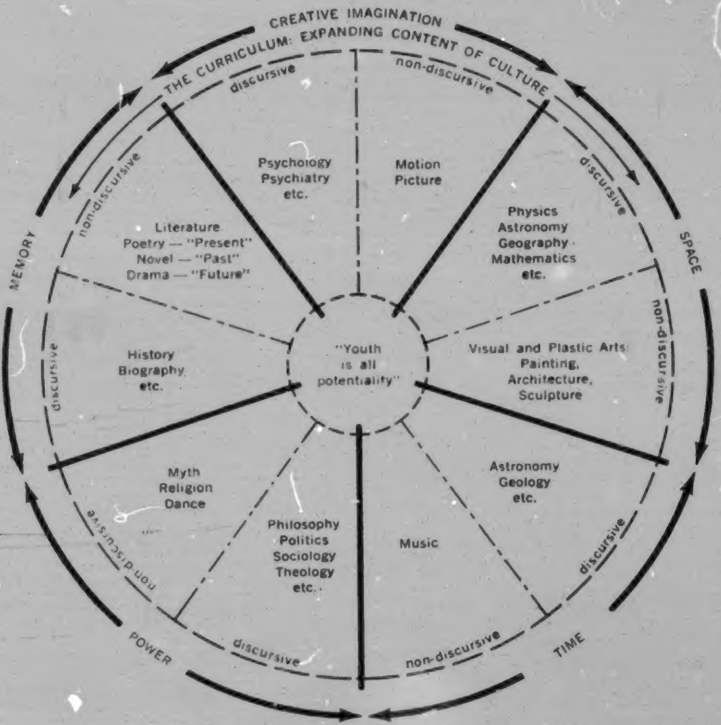
[51] For an example, see: "Parts of Speech and Punctuation." *The Limits of Language.* Walker Gibson, editor. © 1962 Walker Gibson. All rights reserved. New York: Hill and Wang, Inc., 1962. p. 79-89. Reprinted by permission of Hill and Wang, Inc.

[52] *Ibid.*, p. 113.

[53] *Ibid.*

To ensure that language remains a vital force in opening up the world, so that students may have access to multidimensional knowledge, curriculum content must be drawn from diverse realms. In the article just quoted, Shoemaker presents an ingenious chart (see Table 3) to show the nature and interrelationships of sources of content available to the curriculum planner.

Table 3. The Sources of Curriculum [84]



Discursive and Non-Discursive Symbolization: Approaches in Fact and Feeling to Five Aspects of Human Experience

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[84] Francis Shoemaker, *op. cit.*, p. 114.

Of this chart Shoemaker says:

> The five major sectors of the perimeter [space, time, power, memory, creative imagination] stem from Susanne Langer's delineation of four great orders of art, plus the motion picture. . . . The sectors include the realms of discourse, through which we orient ourselves factually in space-time-energy and culture, and the complementary non-discursive art forms, through which we get the life of fact and feeling into form.[55]

Shoemaker's chart illustrates how the interrelationships of knowledge may be diagrammed. Although appropriate ways in which to order all of these sources of content into a curriculum for a given segment of the school or for a particular individual remain to be discovered by those responsible, a curriculum drawing on such comprehensive and realistic sources should be appropriate for a postliterate world.

A Place for Intuition

In *The Process of Education* Bruner includes a chapter, "Intuitive and Analytic Thinking," in which he suggests the desirability of cultivating an intelligent kind of guessing.[56] In a more recent book, *On Knowing*, Bruner has further developed this idea.[57] He uses the subtitle, *Essays for the Left Hand*, by which he means an approach to knowing "whose medium of exchange seems to be the metaphor paid out by the left hand." In explanation he continues:

> It is a way that grows happy hunches and "lucky" guesses, that is stirred into connective activity by the poet and the necromancer looking sidewise rather than directly. Their hunches and intuitions generate a grammar of their own—searching out connections, suggesting similarities, weaving ideas loosely in a trial web.[58]

Here is another way of knowing, one whose implications for education have only begun to be explored.[59] Clearly knowledge can be gained through intuition. If we can find room in education for both intuitive and analytic approaches, we will have a useful arrangement. Not only will it help individuals to stay in communication with other individuals engaged in vastly different pursuits but it will help them stay in touch with each other. Bruner has made this point forcefully:

> I find myself a little out of patience with the alleged split between "the two cultures," for the two are not simply external ways of life, one pursued by

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[55] *Ibid.*, p. 114-15.

[56] Jerome S. Bruner, *op. cit.*, Chapter 4.

[57] Jerome S. Bruner. *On Knowing*. Cambridge, Massachusetts: Belknap Press of Harvard University Press, 1962.

[58] *Ibid.*, p. 4

[59] See Chapters 13 and 14 of this yearbook.

humanists, the other by scientists. They are ways of living with one's own experience.[60]

A still different method of incorporating both approaches in the curriculum is to attack studies in a variety of ways.

When the anthropologist Oscar Lewis wanted to learn all he could about certain people in Mexico, he approached the problem from many angles. In 1943 he began a study of the village, Azteca. Later he studied some of those villagers who had moved to a given neighborhood in Mexico City. Next he broadened his research design to study the residents of the entire neighborhood, irrespective of their place of origin. Then he chose five families and attempted to learn what went on in each of five ordinary days. Finally, he took a "deeper look into the lives of one of these families by the use of a new technique whereby each member of the family tells his own life story in his own words."[61]

What if more schooling were to follow this pattern of approaching one problem or topic from different vantage points at different times? The view thus obtained would be "cumulative, multifaceted, and panoramic," just as was the view Lewis secured through his methods. Bruner shows his approval of such a scheme in these words:

> The succession of studies we give the child in the ideal school need be fixed in only one way: whatever is introduced, let it be pursued continuously enough to give the student a sense of the power of mind that comes from a deepening of understanding. It is this, rather than any form of extensive coverage, that matters most.[62]

The idea of securing different perspectives—great depth on one occasion, a mountaintop view on another, cross sections, closeups, comparisons, patterning of raw data, panoramas—can be applied using varying subject matter as well as returning to the same area of content.

Two Ways of Organizing the Curriculum

We return finally to the two alternatives in curriculum organization named by Foshay, the "problem-centered" and the "discipline-centered."

Education first had a long experience with a subject-centered curriculum. Dissatisfaction with compartmentalization of subject matter finally led to various innovations in curriculum organization. Fusion courses, a broad fields approach, integrated units of work, and the core curriculum were tried in an effort to help young people integrate and apply knowledge from various fields. Experience with these often clumsy attempts at problem-centeredness proved advantageous in certain respects but also revealed some weaknesses.[63] For one thing, educators did not have as good an understanding of the nature of the separate subject fields being integrated as is now beginning to be available. Although they had the worthy intention of helping students "draw upon" various disciplines, the content of the disciplines was not organized to facilitate this process.

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[60] Jerome S. Bruner, *On Knowing*, *op. cit.*, p. 5-6.

[61] Oscar Lewis. *The Children of Sanchez*. New York: Random House, 1961. p. xi.

[62] Jerome S. Bruner, *On Knowing*, *op. cit.*, p. 122.

For a variety of reasons today, separateness is once more in the ascendency. For example, some schools have abandoned a unified social studies course and have gone back to separate geography and history in the elementary school. Certain developments in the organization of the elementary school have been promoted on the basis of their promise to provide subject specialization among elementary school teachers. Interest in general education or core classes at the junior and senior high school level also has lessened.

While it is somewhat discouraging to see integration of knowledge and continuity in over-all intellectual development of individuals accorded less value just now than progress in individual subjects, the situation on that score is not as hopeless as it might seem. On the one hand, there is general recognition of the point argued so brilliantly by Robert Lynd two decades ago; namely, that problems of a modern society cannot be solved by specialists in any one discipline.[64] McLuhan refers to the same problem in mentioning the need today to substitute "team for specialism."

On the other hand, we know we must maintain within our society widespread and high competency with respect to the separate disciplines. This competence may range all the way from sufficient grasp of a field to be able to follow developments and enjoy learning more about that discipline (the hoped for outcome of general education) to ability to add new knowledge (the purpose of specialization in a discipline). The attention to the separate disciplines being urged today is of a different character from that practiced in relation to school subjects of yesterday. Today's proposals reject a curriculum based on outmoded, insignificant, isolated bits of subject matter as vigorously as did the "progressives" in the 'twenties and 'thirties. The proposals reflect confidence in understanding of fundamental principles and ideas and in learning how to learn as the main road to "transfer of training."[65]

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[63] For a critique of such developments in the field of social studies, see: Alice Miel and Peggy Brogan. *More than Social Studies.* Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1957. Chapter 5.

[64] Robert S. Lynd. *Knowledge for What?* Princeton, New Jersey: Princeton University Press, 1939.

[65] For discussion of current view of transfer, see: Jerome S. Bruner. *The Process of Education, op.cit.*, p. 5-6, 17-18. Also see: Percival M. Symonds. "Transfer and Formal Discipline." *What Education Has to Learn from Psychology.* New York: Bureau of Publications, Teachers College, Columbia University, 1958. p. 1-9.

Surely it is desirable to build a curriculum that includes both approaches, problem-centered and discipline-centered. Both ways of viewing the world are needed by the individual and the society.[66] Given our experiences with problem-centered studies that integrate information from various fields of knowledge and given our newly developing insights with respect to the most transferable elements of the separate disciplines, it now seems possible to develop such an inclusive curriculum. Let us, then, examine a somewhat detailed proposal for accomplishing this feat.

A Concrete Proposal for a Curriculum Using Both Approaches

In sketching the proposal, the incorporation of the various features discussed in preceding pages is assumed—discursive and non-discursive uses of language, broad sources of knowledge, intuitive and analytical thinking, different angles of viewing, and different ways of organizing the curriculum. The feature to be developed here is a set of suggestions for incorporating in general education at the elementary and secondary levels direct attention to the disciplines as disciplines.

During the block of time devoted to the disciplines, different kinds of experience are to be provided: (a) for learning the domain and the key concepts of the disciplines; (b) for rediscovering (or possibly discovering) knowledge in the disciplines; (c) for taking on the structures of the disciplines (some of the most significant, interrelated facts making up that body of knowledge); and (d) for seeing likenesses and differences among disciplines in the same category and becoming aware of their relation to the totality of knowledge.

The approach to separate subjects suggested by McLuhan seems most appropriate for the foregoing purpose:

> It follows that any existing "subject" in our curricula can now be taught as a more or less minor group of models of perception favored in some past or at present. Taught in this way any "subject" becomes an organic portion of almost any other "subject." Moreover, it also follows that "subject" taught structurally in this way offers innumerable opportunities for new perception and new insight at elementary levels.[67]

It will be necessary to do considerable experimenting to ascertain the disciplines most suitable for different age levels, appropriate approaches to those disciplines at such levels, and the length of time required for the students to attain sufficient immersion in a group of disciplines to give them an elementary grasp of those fields.

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[66] Arno A. Bellack provides a well-rounded treatment of the values of both types of curriculum organization in: "Selection and Organization of Curriculum Content: An Analysis." *What Shall the High Schools Teach?* 1956 Yearbook. Washington, D.C.: Association for Supervision and Curriculum Development, 1956. See especially p. 104-21.

[67] See preceding chapter.

Because so many disciplines deserve attention in organized education, it is suggested that they be grouped in "families" of closely related fields and studied in a comparative manner. Such a comparative approach has the built-in advantage of alternation of analysis and synthesis. Since individuals can go only so far with a discipline at younger age levels, it is important to provide later opportunities to return to a discipline and develop greater depth of understanding. Therefore, three cycles are proposed for grades four through twelve (see Table 4). (The nature of the curriculum envisaged for the primary grades is discussed in a later section.) More detailed discussion of these cycles is included in the separate treatments of the elementary and secondary school which follow.

Table 4. Proposed Cycles for Comparative Study of Disciplines

Cycle One

Grade 4 —The arts (graphic and plastic, fine and industrial, music, dance, poetry)

Grade 5 —The natural and physical sciences (human biology, physiology, chemistry, physics, physical geography, geology, climatology, astronomy) and mathematics (arithmetic, geometry, algebra)

Grade 6 —Social sciences (history, anthropology, sociology, economics, political science) and ethics

Cycle Two

Grade 7 —Communication (linguistics, semantics, mathematics, statistics, art forms)

Grade 8 —Social sciences (history, human geography, political science, economics)

Grade 9 —Natural and physical sciences (biology, chemistry, physics)

Cycle Three

Grade 10—Communication and aesthetics (literature and the arts)

Grade 11—Social sciences (sociology, psychology, social psychology, anthropology)

Grade 12—Religion, philosophy, and ecology.

Fitting the proposal into the elementary school. The most promising arrangement for a problem-centered curriculum has long appeared to be the so-called self-contained classroom. Many have believed, however, that a form of departmentalization in the elementary school was the best plan for a subject-centered curriculum. The present proposal provides for a certain amount of specialization in the disciplines by the elementary school teacher without sacrificing other values of having one teacher responsible for the major part of an elementary school child's curriculum.

Whether we continue to use the term self-contained classroom or move to another appellation, such as coordinating classroom or general classroom or homeroom or some other, is not so important as maintaining an arrangement with sufficient flexibility of time use and sufficient commitment to both problem-centered and discipline-centered approaches to allow an elementary school pupil to experience both ways, with help in seeing relationships between the two. It is the writer's belief that we stand to lose more than we gain by inserting direct attention to the disciplines in the elementary school curriculum unless we maintain a basic plan of having children spend much of their time in their own classroom under the direction of one teacher, with supplementary teachers (such as art, music, physical education) and supplementary or specialized work centers (such as library) available.[68]

The classroom teacher in such a scheme must have competence in the area of child development and learning, broad cultural interests, skill in the process of generalizing and synthesizing knowledge for himself, and ability to help children order and integrate their knowledge and put it to use in relating to others, understanding and appreciating their world, and solving problems. It is more realistic now to hope for the development of such competence, for we see the economy and general usefulness of helping teachers to become familiar with the key concepts, the domains, tools, symbol systems, and histories (outline maps, to use Broudy's term) of the disciplines with greatest pertinence to the common man. We see the importance and feasibility of helping teachers become familiar with the interrelatedness of all these fields as well. Preservice and in-service teacher education is quite the place to begin giving special attention to the disciplines as disciplines.

As for the program of the elementary school, the proposal is that the primary grades continue as the best of them now are operating. This means that the curriculum organization is a combination of unified studies on some problem or topic that invites cutting across several areas of knowledge, broad fields (like language arts), separate subjects (like mathematics), and nonclass activities (like care of the classroom). Within these different segments of the curriculum, teachers provide opportunities for experience with a wide range of media and their related symbol systems so that the children may gain knowledge of different kinds and from varied sources. Teachers use all sorts of opportunities in different parts of the school day to help children build meanings out of their varied experiences and to make verbalized connections of many kinds so that their knowledge is constantly being increased, clarified, and systematized. There is much use of a method of discovery.[69] Thus in early grades children are helped to develop meaningful concepts, some relating to separate disciplines, some cutting across disciplines. But direct attention to disciplines as disciplines is reserved for a later time. Meanwhile, an essential experience base is being built during these early years. Furthermore, much attention is being given to the "symbolic tools of thinking, communication, and learning" which make up Broudy's first category of bodies of knowledge. The quality of instruction in this category will be greatly improved if teachers have a grasp of modern approaches to mathematics, linguistics, and the arts.

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[68] The reasoning behind this position is more fully developed in: Alice Miel. "The Self-Contained Classroom: An Assessment." *Teachers College Record* 59: 282-91; 1958.

It is intended that this entire program of meaningful and integrated development of knowledge from various disciplines will continue throughout the elementary school at the same time that a portion of the day is given over to comparative study of certain of the disciplines, beginning with the fourth grade. In fact, with the same teacher in charge of both parts of the program, the two kinds of approaches should be rather easily coordinated.

The proposal for direct attention to the disciplines in fourth, fifth, and sixth grades requires that teachers at this upper elementary school level be specialized in one group of disciplines. Teachers with various specializations can then be resource persons for other teachers at all grade levels. If experimentation were to establish the worth of this whole proposal and indicate appropriate selection, emphasis, and grade placement for various families of disciplines, some standardization of teacher preparation could be achieved on a national scale. This seems more feasible than suggestions or, in some states, the requirement, that elementary school teachers have a subject specialization.

The proposal also calls for new types of materials. Again some standardization on a national scale seems useful. Since the materials of instruction for the disciplines would not be problem centered, they would be essentially neutral and therefore suitable for any part of the country.

The proposal of the arts as the focal group of disciplines in grade four is based on the reasoning that the media and the forms of expression employed are quite concrete and manageable by children. They will have had much previous experience as consumers and producers of all of the arts listed. Sophisticated concepts, such as the role of the arts in a modern society, may have to be reserved for the second or third cycle but there are many ideas within the reach of nine-year-olds.

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[69] Some attention to ways of helping children to process and order their information is given in: Alice Miel and Peggy Brogan, *op.cit.*, p. 142-46, 302-17.

Two illustrations come to mind. One is a teacher presenting to his class three ways of conveying the idea of a storm—a poem, a painting, and a piano selection. The other is a teacher whose children were approaching a study of different cultures past and present through the sculpture produced by those culture groups. This teacher had helped his children to develop a large wall chart showing the essential nature of sculpture as a field of creativity—simple ideas like the tools employed and the materials commonly used in this art form.

In grade five, children might be ready to take a comparative look at various ways men study the physical world and living things, including their own bodies. The close relation of mathematics and science is an aspect of those disciplines which children of ten might be able to comprehend.

Grade six is seen as the time to look across many of the major sciences devoted to study of man and to capitalize on the interest in justice which appears to be high in children at that level.

Fitting the proposal into the secondary school. Since secondary schools start with a departmental organization, there might seem to be no problem of giving attention to the disciplines as in the elementary school. Rather, provision for problem-centered experiences usually is seen as the main need.

Actually both approaches present problems. Many a secondary school specialist has not himself been educated to understand his own field of specialization as a discipline or to help students to develop such understanding. Furthermore, given the complicated schedule of most modern secondary schools, it is difficult to assign responsibility for teaching a discipline as a discipline so that there will not be wasteful repetition.

Different attempts have been made to provide opportunity for secondary school students to learn to apply knowledge from several fields in solving problems. A popular means has been the so-called core or general education class.

One difficulty in implementing the idea of a core or general course is that most secondary school teachers are highly specialized in one or more separate subjects and have found it hard to be generalists. Perhaps a virtue could be made of the competence and interest in a field of specialization which the secondary school teacher has by making various disciplines the center of attention for a portion of time in general education.

This plan would have the extra advantage of requiring that secondary school teachers who need to do so should develop competence in understanding their own field as a discipline and in being prepared to help students do the same. Furthermore, this plan would assign responsibility for the basic teaching of a discipline as a discipline, a foundation on which other teachers could build as students go on to specialized courses in a field.

The attempt to provide for a problem-centered approach at the secondary school level should not be abandoned, however. To provide for both a discipline-centered and a problem-centered approach, this is how a student's program of general education might look in Cycle Two:

In grade seven, teachers with specialization in linguistics and semantics, mathematics and statistics, and the arts might work as a team to provide an introductory coordinating seminar in which the roles of these fields in modern communications were compared and contrasted. Propaganda analysis and the biases of different media of communication might be stressed here. Data processing could also be studied as a modern phenomenon. The students might then rotate among these specialists for an intensive experience in each of the three groupings of disciplines in turn. (The order in which any one group pursued the disciplines would not seem important.) The nature of the experiences within a grouping of disciplines would be similar to that proposed for the elementary school, except that the level of sophistication would be higher. The school year would be completed with an experience in another coordinating seminar working on a current, pressing problem under the direction of one of the specialists.[70] The problem would be seen, as Broudy puts it, through the "categorial grid" of one domain of organized knowledge, the one in which the teacher was specialized, but the teacher would be responsible for helping students look at the problem as broadly as possible, using other relevant grids.[71] Team planning by teachers would be most useful in this connection.

In grade eight, the process would be repeated with a coordinating seminar for taking a deeper look than was possible in Cycle One at interrelationships among the social sciences. The slight change in the particular social sciences included makes new interrelationships a potentiality. Again, it is proposed that a problem-centered coordinating seminar be provided to complete the year's work, following the plan for grade seven.

In grade nine, the introductory seminar would point up the differences and likenesses in these developing fields before each was given separate attention. It may be noted that this is the last time the natural and physical sciences are proposed for inclusion in general education, on the assumption that one or more of those fields would be studied as a high school subject by most students. In the introductory seminar and in the separate block courses, it would be appropriate to stress the history and philosophy of these sciences as well as the direction in which the fields seem to be moving. The year would conclude with a problem-centered seminar as in grades seven and eight.

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[70] Arno A. Bellack proposes a coordinating seminar dealing with problems "in the round" as a way of showing "the intimate relationships between the systematized fields of study as materials from these fields are brought to bear on a topic," *op. cit.*, p. 121.

[71] Harry S. Broudy, *op.cit.*, p. 143.

In the tenth and eleventh grades, the pattern would be similar to that in the previous grades of the secondary school. The emphasis might resemble that of the ninth grade; that is, the history and philosophy of the disciplines included and the direction of movement in those fields might be stressed.

Attention to the disciplines might be slightly different in grade twelve. Here one specialist might deal with religion and philosophy for a semester while another specialist might introduce students to the coordinating discipline of ecology in another semester. (A rotation plan to keep both teachers occupied both semesters would seem perfectly feasible.) These senior year experiences would be capping ones, the entire year being used to bring about, for students, as much unification of knowledge and values as possible.

The proposal as outlined should provide for the four "pivotal values" which Phenix believes should be developed "in a democracy of worth"—intelligence, creativity, conscience, and reverence.[72]

For the proposal to meet with success, it will be important that secondary school teachers have the broad base of understanding the major disciplines seen as necessary for the elementary school teacher. Of course, the specialist teacher in the secondary school must understand the basic properties of his own selected discipline(s) as already discussed. In addition, the secondary teacher needs to have the general competence in the area of human development and learning, the broad cultural interests, the skill in generalizing and synthesizing, and the ability to put knowledge to use and to teach problem solving which is expected of his elementary school colleagues.

It is especially important that secondary school teachers in general education courses, dealing as they must with a wider range of difference in each group than elementary school teachers do, know how to provide opportunities for experiences that are within the grasp of each student.

What else students may be taking at the same time is left open.[73] It seems desirable for secondary students to work intensively in a very few courses at a time. This has the added advantage of allowing any one teacher to meet fewer students daily. It is assumed that students will give further attention to some of the disciplines as part of their specialization or as an extension of general (required) education, where a separate subject approach seems desirable. Teachers in these specialized courses would not need to assume responsibility for basic instruction in the features that make a discipline distinct. Rather, they can go on

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[72] Philip H. Phenix. *Education and the Common Good.* New York: Harper and Brothers, 1961. p. 28.

[73] William B. Featherstone made an elaborate and meritorious proposal for the complete secondary school curriculum in: *A Functional Curriculum for Youth.* New York: American Book Company, 1950. Chapter VII. Broudy makes the startling statement that he would abolish all vocational and elective work in the high school, *op.cit.*, p. 155.

Table 5. For Continuity and Wholeness in Education

Sequential arrangements of information Information presented in a field of simultaneous relations	Information movement in a postliterate world
Differentiating Integrating	Forming concepts
Language used for closing Language used for opening	Language as a tool for knowing
Discursive uses of language Non-discursive uses of language plus uses of other non-discursive symbol systems	Depth awareness
Analytic thinking Intuitive thinking	Search for intelligibility
Discipline-centered experience (focus on knowledge in men)[74] Problem-centered experience (focus on people in midst of knowledge)	Curriculum for knowledge production and consumption

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[74] For an elaboration of this idea, see: Sheila Sullivan. *The Art in the Language Arts*. New York: Teachers College, Columbia University, 1962. Doctor of Education Report; microfilm. p. 37.

to help students learn how to criticize the state of the field and to make further inquiries in it.

In order to provide something concrete to start discussion, the foregoing proposal has been set forth with more confidence than the writer feels. The general idea seems worth thinking about and working on, but it is certain that change in many of the details will improve the scheme.

Continuity and Wholeness

For continuity and wholeness in the education of individuals, it is often necessary to unify seemingly conflicting concepts. One way to review ideas dealt with in this chapter is to present them in diagram form (see Table 5).

In a postliterate world, the individual will need to be able to retrieve and use information stored in a great many containers: in people, in print, on tapes, in computers. He will need to be able to organize knowledge in both verbal and nonverbal symbol systems. He will need to be able to sort and order information for his own purposes. Only through participating in all such processes throughout his education will the individual today be able to unify continuously within himself the knowledge gained through both oral and written modes of transmission. This is the total lifelong process to which McLuhan directs our attention.

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SELF-MANAGEMENT | WHERE WE ARE & WHERE WE WANT TO GO

MODERN man knows a great deal today about the sources of behavior that lie in his own nature as a human being, about how these sources are affected by unique personal experience, and how they are shaped by the process of socialization. In the sense of being aware of why he tends to behave as he does, man today can be said to be acutely self-conscious.

Doubtless much of what modern man now thinks he knows about himself will in time be found to be only partially true, some of it possibly altogether false. Indeed, the search for greater certainty about his nature and about the part played in its realization by personality and cultural pressures and processes yields new insights every year. The proper and perhaps the favorite study of mankind continues to be man.

But the question to be raised here, of course, is whether with such knowledge as he now has, man can become a better manager of himself. Or perhaps for us in education the question should be phrased in this fashion: What are the conditions in which man can develop greater competence in self-management? Or if we wish to push back still further: What helps and what hinders, as far as the schools are concerned, in the development of capacities for self-management? It is with this query that these two chapters are chiefly concerned.

In her chapter, Lois Barclay Murphy defines self-management in terms of children's capacities for exercising independence and self-control and for achieving adjustment. From the observation of normal children in the Kansas studies of the Menninger Foundation, she has come to view the growth of independence as requiring freedom to explore the immediate physical environment; she relates such "motility" directly to the development of "its twin, autonomy of the ego." Two other concepts basic to her presentation are *realism*, by which she means the effectiveness of the child in sizing up and dealing with events and persons, and *regression*. Regression she thinks of as necessarily and wholesomely paired with progress in a rhythm of personal development. The child or learner who can acknowledge and accept his need for help when he gets tired or faces too much tension is likely to be healthier and more open to new experience than the overly self-assured or the always self-confident. Autonomy is not an absolute

Fannie Shaftel, in her companion chapter, responds in particular to the relationship between freedom to explore the environment and the development of effective cognitive functioning. She reports a series of germinal studies in education and psychology that bear on this central theme—a comparative study of open and closed systems of learning, an investigation into teaching children to learn through training in thinking, and several approaches to assessing and using social influences on the development of self-management. After summarizing a relevant public school action-research study on problem solving, she concludes with a review of new developments in teacher education that deal with promoting greater autonomy for learners.

Chapter 5

Self-Management Capacities in Children

Lois Barclay Murphy

SELF-MANAGEMENT has been a concern of American child-rearing and educational programs for a hundred and fifty years. This concern, however, has been expressed differently in each period, depending on the values dominant in different phases and areas of our cultural life. But throughout this time, two emphases have been persistent: (a) development of capacity for independence in meeting one's own needs and dealing with the environment and (b) development of capacity for self-control or management of one's own impulses and drives.

The first of these, independence, involves active efforts at self-care —the ability of the child to dress, toilet, and feed himself—and ability to take care of necessary tasks with minimal help, to entertain himself, and to establish his own relationships with other children. The emphasis on early development of independence has undoubtedly been reinforced by the long experience of our culture under pioneer conditions which demanded hard, long efforts from both parents. Energy was needed for the endless tasks of conquering the soil and creating a home; parents needed assistance from self-propelling children and had little margin of time or energy for "coddling." Thus greater demands for independence were placed upon small children in our cultures than in oriental cultures, for example, in which children are often not even weaned until they are two or three years of age. In anthropological studies, we see enormous differences in the developmental pace expected and imposed in relation to independence.

The second emphasis, self-control, is focused on inhibition and the capacity to direct, channel and limit impulses of every kind which conflict with social norms. It includes learning the prohibitions against destructiveness, intrusiveness, exhibitionism, pride, excessive assertiveness, inappropriate competitiveness, and the like. The second emphasis is not entirely separate from the first, since the capacity to develop constructive patterns of self-care, work and the like implies the capacity to channel one's impulses. Self-control implies also the capacity to understand clearly what the taboo areas and areas open to expression actually are, something which is easier when the lines are drawn firmly and clearly.

Bases of Self-Management

The philosophical background for the emphasis on the individual child's resources for management of himself in the environment draws from Rousseau, Montessori, Dewey and others. These philosophers were aware of the child's own capacities for adaptation and for creative interaction with the environment. In contrast were those philosophers who emphasized the bending of the twig and forgot that the branch has to do its own growing and only external interference bends it in distorted ways.

In psychology, attention to the capacity for self-management in these first two senses came into focus in work with retarded children. At Vineland, Doll[1] developed a scale for rating the available capacities of a retarded child. While this was called a "Social Development Scale," the emphasis was largely on self-care and self-control. Intelligence tests have included a small number of tests or tasks designed to tap capacities for independent problem solving in personal and social as well as abstract areas. Adequate scales here have yet to be devised.

Drives such as curiosity and the desire to perceive clearly, to test reality, and to know, including tendencies to manipulate objects and to create new things—all play a part in the development of independence in dealing with the environment and in managing oneself. These are reinforced and augmented by influences from deep sources in the child's impulse life—his experiences of autonomy in controlling, letting go or retaining his own bodily products; his erotic and passionate drives to possess objects of love. Aggressive tendencies also contribute to the child's experience of give-and-take with the culture.

In addition, many other aspects of his equipment contribute to differences in the active efforts a child makes to deal with the environment. These include energy and activity level, quality of coordination and capacity for skill, length of attention-span, degree of persistence, and capacity to work toward a goal despite obstacles. Capacity to delay or to wait for satisfaction, capacity to inhibit impulses, degree of balance in frustration-tolerance, extent of insight, awareness of others and their needs—these form another set of tendencies that contribute to the ability to control and direct one's energy.

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[1] Edgar A. Doll. *Measurement of Social Competence*. Minneapolis, Minnesota: Educational Test Bureau, 1953.

Edgar A. Doll. "Vineland Social Maturity Scale: Manual of Directions." *Measurement of Social Competence*. Minneapolis, Minnesota: Educational Test Bureau, 1947.

As can be seen in the studies of prediction by Escalona and Heider,[2] some of these tendencies can be observed in the first half year of life and tend to persist through subsequent years of development, including the basic qualities of perceptual and motor skill, attention, and persistence in the first group as well as the capacities to delay or inhibit. Such trails as frustration-tolerance are more complex and are an outcome of many interweaving factors in the child's experience. These are developed, stimulated, augmented or blocked by a wide variety of aspects of the child's interaction with the environment; some of these aspects have to do with general characteristics of the community, some with education and recreational opportunities, some with patterns of family life.

Insights from Kansas Studies

In our intensive study of Kansas children, we have noted that among those who are thriving, autonomy is strong, but this quality is also accompanied by ability to seek and ask for and use help when a child has come to the limit of his own resources. This is worth emphasizing because of a widespread tendency to emphasize autonomy as an absolute value, an emphasis which we can see even in Jahoda's[3] well-balanced discussion of factors in mental health. While the importance of an adequate balance between autonomy and ability to use help is most obvious at this young level, it is undoubtedly important at every age level through life.

In our studies of college women students, the simplest scrutiny of individual cases made it obvious that students who are extremely autonomous to the point of having completely settled, clear-cut ideas about exactly what they wanted to do in college tended to use the college to carry out these ready-made plans. They were not as able to respond to new aspects of college opportunities for expansion and deepening of their own personality and relation to the world. By contrast, less crystallized or even less mature students were able to make much richer use of the opportunities for new experiences available to them in the college situation.

Similarly, whether it is a matter of new work opportunities, new personal relationships, or even therapy, the capacity for change and flexible growth appears to be related to the capacity to use help, as well as to the strengths related to autonomy; that is, growth depends on responsiveness to the challenges and difficulties presented at successive stages in life, and it is normal to need and to use help in developing the capacity to master these.

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[2] S. Escalona and G. M. Heider. *Prediction and Outcome*. New York: Basic Books, 1959.

[3] M. Jahoda. *Current Concepts of Positive Mental Health*. New York: Basic Books, 1958.

Evolution of Autonomy

Since autonomy emerges so clearly in our Kansas group of children and at a very young age, it may be worthwhile to bring together here all of the various factors which we have seen contributing to the emergence of this quality.

In our research group, we have seen the many ways in which the handling of the child has contributed to autonomy and to self-control from the earliest weeks. These mothers typically respect the child's preferences from the first weeks of life. When the baby spits out or pushes out unwanted foods, the mother recognizes that "he didn't like" the beans or whatever the food is. These mothers appreciate the child's own preferences, as well as his rhythms of eating and sleeping. This lays a foundation for the baby's own acceptance of his body and its needs and his right to meet them and get help in meeting them. "He likes to sit up" or to be held "so that he can look around" are comments that also reflect the mother's respect for the baby's need to develop perception and motor skills. In general, babies are not confined for long periods to a playpen, and most of the mothers welcome and foster motor development. At the same time, taboos against destructiveness are very strong in this relatively low income group.

The Topeka children represent a sample of American children in small town areas doubtless typical of towns from perhaps ten thousand to two hundred thousand or more. In the Topeka setting, the children whom we knew, with rare exceptions, live in individual homes with back yards and front yards. The door from the kitchen is usually close to the ground so that as soon as the baby can get around on his own two feet, he can push open the screen door and get to the outside world where he can explore and play under the casual supervision of older children or of mother who can watch him from the window. This kind of freedom is available to all the boys and to a majority of the girls and motor coordination in our children is good, for the group as a whole. Most obvious is the fact that at the time when autonomy is emerging as a feeling and attitude, stimulated by the scope and achievement and mastery which locomotion and motor development make available to the child, there is minimal interference or frustration. The blossoming of motility and its twin, autonomy of the ego, can take place without the shadow of overbearing adult guidance and interference.

But beyond this, we need to think about some other aspects of autonomy in terms of the results of this kind of experience. Not only does the child have an opportunity to develop a feeling of independence in his explorations of the environment but this in turn brings with it a rich experience of autonomous observation, perception, discovery, inference, and formation of concepts and of opinions about the world around. In other words, the autonomy promoted by freedom for the use of developing motility extends the child's cognitive resources and provides a basic foundation of spontaneous and genuine cognitive relatedness to the world. This directness of contact with the world, and the freedom from the need to rely upon secondhand, grown-up interpretations and concepts to the extent which results from closely supervised movement in the environment during the first seven years of life, evidently help to explain the spontaneity of the children's ways of dealing with new situations and new adults.

The processes of finding and offering substitutes, emphasizing what one could do when confronted with what cannot be done; fending off excessive demands or pressures; and spontaneously asking for help without conflict or self-abasement—these must be assumed to be processes which had developed in previous spontaneous exchanges of the child in his explorations of the environment.

Here we can offer examples of the expression of autonomy by young children in test situations with the psychologist.

Importance of "Knowing" for Independence

Teddy was very decisive in refusing to be put off until he knew exactly why. He would not let anything pass until he understood. For him, understanding and knowledge were important for feelings of mastery and security, and he used his capacity for autonomy to increase his knowledge while the increased understanding in turn reinforced his autonomy. Likewise, he was very free to point out uses or aspects of objects and situations different from those the examiner proposed: "I want to show *you* something." "You know something? You can make more things with these blocks." Here he demonstrated his capacity to take turns in giving assignments.

Mark, a preschool child, asked multiple questions about things. Then, once he had the answer, he would swagger off, smiling and satisfied, murmuring, "I know. I know." Even his sister's teasing that he did not know until he had been told failed to dim his self-assurance.

Terry, quick to understand, was impatient with the examiner's slow pace. "I know! I know! I know! Hold it. I know." He asserted his own status with increasing loudness and vigor.

Brenny's autonomous explanations and directing of the situation were his way of asserting his autonomy. Examples were telling the examiner how to sit and taking care of the female adults, with a manly way of opening doors and so on.

Various children defined their own tempo: "I couldn't do that right now." "I'm not ready yet." Others expressed preferences and wishes: "I can't . . . 'cause I don't want to." Even with marked difficulty in the tests, roughly half the sample stayed autonomous; this was more characteristic of boys than of girls.

Acting autonomously looms larger in some children than in others, but even in quiet children one senses a quality of dignity conveyed by the child's effort to remain autonomous. Even withdrawing can in a sense be autonomous behavior if it is realistic self-protection in a threatening situation.

Every child in our sample could at times act independently: some tried to change the situation; others shared defensively in an effort to maintain a picture of themselves. In yet others, there were direct verbal "I don't know" answers which seemed free of tension, and were realistic expressions of their own situation.

Trudy was especially capable of putting off, refusing to continue beyond the point that was gratifying and successful or meaningful to her.

Freedom To Explore and Discover

We learned from these careful observations that autonomy means not only the capacity to do independently the things expected by the culture, such as the activities of self-care, but includes the child's capacity to respond to and to deal with demands from the adults in his own way.

It is also probable that the freedom to explore and to discover, to find one's own answers and to solve one's own problems typical of so many of the children, underlies the prevalent realism which we found. We use this word in its everyday sense—the child is realistic when he makes a sensible, accurate, practical appraisal of the potentialities and limits of objects, situations, the characteristics of other people and of his own resources.

Counterpoise to Tension

The scope of realism and the child's accumulation of substantial, accurate, dependable knowledge of his surroundings also acts as a counterpoise to the pressures from internal sources of stress and conflicts, which were not very different for these children from what we have seen in other groups in American society and also were not very different in content from the conflicts typical of more disturbed children. All small children have to struggle with the problems inherent in the fact of their smallness in a world of big people. They have to struggle also with the realities of sex differences and of their exclusion from the love affair of their parents, with the consequent necessity of accepting a different kind of closeness with each of their parents, together with the resentments and anger resulting from this exclusion. These feelings, as well as intense feelings regarding the unavailability of parents at times and feelings arising from competition for satisfactions both with parents and with other children in the family, are universal. But in this group of children, we see all of this balanced by an intense interest in the environment, pride in the skills which they have developed in dealing with it, and the strong vivid sense of satisfaction in their own functioning in the world.

The nursery school movement, folk schools, and "modern" schools with flexible equipment and programs have all developed techniques for encouraging the child's own drives to solve problems and to handle the environment—its tasks, opportunities and challenges—in autonomous ways. But these modern institutions have often been blind to the child's need for something to love, care for, protect, possess, dominate, stimulate or even provoke. Aggressive needs for competition, rivalry, exhibition or dominance are sometimes ignored without adequate substitutes. However, opportunities for the exercise of autonomy do often involve the assignment of important responsibilities for classroom care, monitoring class activities, policing traffic in the neighborhood of the school, and the like that can provide such satisfactions.

Example of Role of Autonomy

Here is a report from the mother of a child forced to change schools, an account in which the child's progress in adjustment exemplifies the function of autonomy, both through opportunities provided to express and demonstrate this quality and through the satisfactions that came with being given appreciation for independent achievements:

> In May, when we had a letter from the principal telling us of the school districting change, Bill was obviously very unhappy. He glowered and grumbled and walked about restlessly with his hands in his pockets and head lowered. During the summer, for the first time in his life, he wanted to move, first to the neighborhood where he could stay in his old school and then to his grandmother's home in another town.
>
> In September, buying new books provided the usual excitement. He looked each one over carefully and decided there might be some good stories in the reader. But on the morning he was to start school, he said he felt ill and did not want any breakfast. Everybody went about the usual morning chores without much comment, and pretty soon Bill thought he could eat one piece of toast. (Ordinarily he has a tremendous

appetite.) He was very quiet as I drove him to school, showed him his room, and introduced him to his teacher. He was obviously too big to request, or even really consider, asking me to stay with him. At noon, he admitted that the teacher was probably going to be pretty nice and that the school building was attractive. "But I don't like the kids!" He did not comment when I suggested he might like them better after he had known them longer. These small evidences of progress did not really change his attitude.

Several days later, it became a game to see how fast he could get home from school on his bike. He started racing a neighbor who had a child in first grade. Aside from suggesting that he remember to be careful at crossings, I did not curb this. He grumbled that stop signs slowed him up, but he did obey them, I feel sure. Toward the end of the first full week, he disappeared into the basement and came up with a latitude gun, which he had made according to instructions in his science book. He was proud of it but could not be encouraged to take it to school.

The second week, he was allowed to be on patrol. This was a first real turning-point in his feelings about school. He wore the badge and belt home, strutted about the yard, and explained their significance. He remarked that one really had to be careful with "these little kids who don't know the safety rules." He commented that he felt a little uncertain about what to do but that the principal would explain. By evening, he was glorying in his authority: he had asked two children to cross the street again more slowly. One complied and was commended. The other who ran on was reported to the principal. Bill patted his badge lovingly and laid it aside carefully. He took his responsibilities very seriously and left home early to be at his job. "Washington is probably the best school in town."

Later that week he made a touchdown in a football game during recess. This was another source of pride and gratification because now he felt the children liked him. Early the next week, he was invited to play after school with one of the boys in his room. He came home radiant and hungry.

During the third week, he made an altimeter. This he packed very carefully and took to school, along with the latitude gun. He remarked that it might not work but he could try again as scientific experiments require patience and many repeated efforts.

In three weeks, as his mother reports, Bill moved from wanting to get away from the new school to enjoying going to it. He had found positive things to say about the building, the teacher and the principal, who obviously offered him support and encouraged him to take over some responsibility. He was gratified that his authority was recognized and that his athletic skills had been appreciated. He liked science, wanted to try out things for himself, could admit that he might not always be successful, but would contribute on his own initiative what he had been able to do. Making a new friend was important, but recognition for his own efforts was also a major factor in feeling confident in the new school setting.

Good teachers know these things, and episodes like this occur everywhere. But with increased mobility and frequency of change, it sometimes happens that teachers forget that most, if not all, children need some recognition for what they can contribute independently in order to feel accepted in new situations.

Needed: Room for Independent Behavior

The revolution in school architecture—with its emphasis on easy direct access to one-story buildings, sunlit rooms, flexible use of space within the rooms, and larger playgrounds (sometimes divided to provide protected play areas for children of different ages and activities)—testifies to an awareness of the relation between physical and emotional development and the environmental surroundings in which a child is growing. Children who are lucky enough to go to one of these new schools have the possibility of spending about half their usable waking hours five days a week in surroundings that promote activity. The rest of their time, outside of as well as at home, is spent in settings with widely varying scope for meeting their needs, for an environment in which they can do things themselves. In some metropolitan areas, it is not permissible for many children of middle class status to explore the external world freely without the direct supervision of an adult up to the age of about nine years. Children are even taken by the hand to school until about nine.

Outside of school, 4-H Clubs, Scouts and other organizations emphasize the development of skills of many kinds. Often these are not selected for their relevance to the child's life, interests or goals or for their importance, value or dignity; at times they may be so trivial, repetitious or boring as to lead to the loss of the child's interest and participation. However, many of the children we studied found them satisfying for a period of time.

We can compare similar movements in India and the U.S.S.R. Basic education in India at its best emphasizes the development of skills contributing to the child's self-sufficiency—growing food and using other agricultural techniques, spinning, weaving, making clothes, cooking, maintaining hygiene in the home and neighborhood, and developing decorative crafts. (At worst, crafts can degenerate to trivial skills of little realistic value.) In the U.S.S.R., children learn physical hygiene and body-building, agricultural and mechanical techniques, photography, music, dance, chess, and other vocational and recreational skills. They are taught seriously with high standards of achievement, by professional tutors and teachers in each field.

Patterns of family life affecting the development of autonomy in children are influenced by major changes in the culture. In the 1930's, participants in local PTA meetings often complained about children's lack of independence and sense of responsibility in those families in which most of the chores were taken care of by maids or other help. Since World War II, the absence of household help has made it natural for every member of the family to carry some responsibility; division of chores and the expectation of care of one's own room and possessions are the rule now in many families over the country and in most of the families of the group we have studied.

Development of Conscience and of Self-Control

Observations both of disturbed children and of normal children in longitudinal studies show the child's need for limits, organization and help in structuring his relation to situations. Extreme permissiveness by adults, whether observed under experimental conditions as in the Lewin, Lippitt, and White[4] experiments or seen informally in observation of teachers who abdicate all leadership, produces anarchy and destructive behavior. Children typically wish and need to respect adults and their capacity to control the child.

At the same time, autocratic, irrational or tyrannical control produces hostility and resentment and creates inner difficulties for the child. He is forced to rebel, ignore, give up, or identify with the tyrannical adult. Some of the suffering and bitterness which this sort of control can bring was illustrated a hundred years ago in Samuel Butler's *The Way of All Flesh.*[5]

The same experimental work we have mentioned illustrates the hostile, competitive reactions to autocratic leadership which can appear even in a group of normal boys who are thoroughly cooperative under democratic leadership.

In deeper studies of children, we see differences between the children who are driven by a very anxious, threatening conscience which constantly dictates what the child "ought" to do, in contrast to children who comfortably develop in a socialized way through identification with the values of their parents.

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[4] Kurt Lewin, Ronald Lippitt and Ralph K. White. "Patterns of Aggressive Behavior in Experimentally Created 'Social Climates.'" *Journal of Social Psychology* 10: 271-99; 1939.

[5] Samuel Butler. *The Way of All Flesh.* New York: E. P. Dutton and Company, 1916.

At the college level, students who have grown up in families which never used severe discipline have remarked, "No one ever punished us for this; it was just one of the things we didn't do." Limits were set by approval and disapproval, rewarding the desirable behavior while discouraging undesirable behavior.

We cannot say that this method will work with all children. With more impulsive, energetic, less easily controlled children, stronger and more clear-cut controls may be needed. At the same time, identification can be fostered by helping the child to understand his own need for help in control. With Colin,[6] at the age of four, intense aggressive impulses in nursery school were controlled by depriving him of group play; he had to play alone "until he could remember" not to hurt children. He complained understandingly, "But it is hard to remember." Even a very young child can appreciate controls if they are fair and apply to limits he can understand. He has to perceive the fairness of such controls in order to accept and identify with them.

The task of internalizing and identifying with the values of the culture is greatly complicated, as Hartshorne and May[7] showed in the late 1920's, when neighborhood or school standards conflict with those of parents; it is then hard for the child to accept or identify with either set of standards. Clinical records show many instances of the same sort of difficulties in identification in children of parents who do not agree about standards or whose own standards of practice differ greatly from what they preach.

Self-Management and Adjustment

Neither of the two emphases in self-management focuses on the child's problem of managing demands and pressures from the environment in such a way as to keep tension within tolerable limits and to handle constructively the anxiety aroused by the normal, expectable conflicts and stresses of life in the family and community. This normal, expectable stress with its accompanying anxiety has probably tended to increase with many aspects of social change—increasing family instability; moving too often for children to get adequately rooted; the mobility of others so that even if one's own family remains rooted, families of one's peers and friends move; and stresses for parents expressed in their tensions, anxieties, or actual mental illness. These are to be added to the universal stresses of sibling competition, competition with one parent for the other, effects of illness, developmental imbalances, and discrepancies between the degree of environmental stimulation and one's need or capacity for tolerance.

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[6] Lois Barclay Murphy. *Personality in Young Children, Volume II: Colin—A Normal Child*. New York: Basic Books, 1956.

[7] H. Hartshorne, Mark May and J. B. Maller. *Studies in Service and Self Control*. New York: Macmillan Company, 1929.

Three Major Aspects of Self-Management

Therefore, in discussing self-management today, it is necessary to deal with three major aspects—independence, self-control, *and* adjustment. We can consider what features of the child's development contribute to each of these aspects, how these are supported by factors within the child and factors in the environment, and how they develop within the child himself.

We see major differences in babies in the very first months of life, in their capacity to make themselves comfortable and to fend off or evoke the amount of environmental stimulation they need as well as specific kinds of help needed. While these capacities are in part related to differences in physical activity, they are probably even more related to differences in flexibility in response to the environment.

We also see major differences among babies in their capacity to wait after signals are seen or heard that food or mother is coming. Some babies seem to "understand" sooner than others do, but also some are better able to inhibit their impulsive tendencies and their cries.

Later, we see great differences in the capacity of small children to understand their own feelings and needs and the feelings and needs of others; self-insight and empathy seem to go hand in hand in many children.

Those trends in our culture which compel children to repress their feelings to the extent that they no longer can be aware of angry, disappointed, or sad feelings make it difficult or impossible for children to develop such insight and empathy with others. Recognition of elementary universal feelings can be a natural part of the growth experience of the child in school and home, along with the processes which help to guide the control and expression of feelings. Therapy is required chiefly when feelings have become so buried, distorted or displaced that they are no longer recognizable; special work is then required to make them available to the child.

A Rhythm of Progress and Regression

Thus when we talk about independence, autonomy, self-management and so on in children, we are not assuming that children can maintain a high level of autonomy under all conditions and without any letdown. In our Topeka study, we have found that the most effective children, the ones who cope best with the various challenges and frustrations, allowed themselves some leeway for regression when they got tired or when things involved too much tension. This regression included, even in some of the most competent and self sustaining children, such behavior as reverting to finger sucking and other comfort activities which they did not ordinarily use but which they had used at an earlier age.

One of the boys who had made the most progress curled up like a little baby when he got sick and for some weeks wanted to be treated like an infant. Actually the regression went even deeper than might have been guessed from this behavior since he was literally at a standstill for a while. He did not show the kind of progress which was typical of him on other occasions. At the same time, after he had recovered from his illness and also after the concomitant pressures in the family had been relieved, he picked up again and in the next few years became one of the outstanding children in school. In other words, he was flexible enough to let down completely and rely on being well taken care of at a time of extreme stress and at another time, when conditions were favorable, to make maximal use of the opportunities and develop excellent capacity to deal with tasks in and out of school in an efficient, independent way.

I am emphasizing this because very often we have a tendency to think in rather static terms—to think that if a child is not independent all the time, there is something the matter with the "trait." On the contrary, if the child has some inner compulsion to be autonomous under all kinds of conditions, if he is not able to ask for help when his energy lags or when he is confronted with a situation which is too much for him, we can very likely expect trouble later. The branch that bends with the wind is less likely to break than a more rigid branch. In short, regression goes hand in hand with progress.

Self-Management and Creative Behavior

While children need limits and the opportunity to identify with good leaders in order to help them develop their own capacities to control impulses, they also need areas of freedom for spontaneous discovery of the world, expression of feelings, and pursuit of their own ideas, if they are to develop their own resources fully.

In our small-town, Midwestern setting, we saw plenty of opportunity for this spontaneity in the earliest years with decreasing areas for freedom as the child grew older. Limits are enforced in many schools by whipping or shaking the child. The children do not rebel; they conform. Their days are full of school, organized sports, and other activities. There is little time to indulge fantasy and little opportunity for new creative efforts. In the pioneer days, realistic problems often had to be solved in new ways; at present, such stimuli to independent thinking do not occur so frequently. The foundation is there in the earliest experience of the child, as we saw, but it is not utilized.

The implications seem clear. If we want children to become autonomous adults in all the senses of the word that we have used, we must foster independence both in the sense of encouraging their own solutions, creative ideas and independent views, and of rewarding independence in carrying out assigned tasks. Only in this way can self-management be fully integrated into the needs of the child and society at the same time.

Chapter 6

Toward More Autonomy for Learners

Fannie R. Shaftel

SELF-MANAGEMENT, Lois Barclay Murphy notes, has been a concern of American child-rearing and educational programs for one hundred and fifty years. This historical assertion of the importance of individuality and independence or self-management now appears to take on new meaning as sociologists and anthropologists speculate about the loss of spontaneity and initiative in "the organization man."[1] For example, the anthropologist, Jules Henry, observes that

> Fundamentally, our contemporary concern about creativity is a culturally acceptable rationalization of our own fear of loss of Self . . . we are really saying that we are frightened that our culture has wrested our Selves from us and is selling them down the river.[2]

In his classic treatment of childhood, Erikson sees the development of autonomy as the second of his eight stages of man. He writes:

> For if denied the gradual and well-guided experience of autonomy of free choice (or if, indeed, weakened by an initial loss of trust), the child will turn against himself all of his urge to discriminate and to manipulate. He will overmanipulate himself, he will develop a precocious conscience. Instead of taking possession of things in order to test them by purposeful repetition, he will become obsessed by his own repetitiveness . . . he . . . learns to repossess the environment and to gain power by stubborn and minute control. . . . Such hollow victory is the infantile model for a compulsion neurosis. It is also the infantile source of later attempts in adult life to govern by the letter, rather than by the spirit.[3]

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[1] William H. Whyte. *The Organization Man.* New York: Simon and Schuster, 1956.

[2] Jules Henry. "The Problem of Spontaneity, Initiative and Creativity in Suburban Classrooms." *American Journal of Orthopsychiatry* 29: 266-79; 1959. p. 266.

[3] Erik Erikson. *Childhood and Society.* New York: W. W. Norton and Company, 1950. p. 222.

In a more popular treatment, Roper comments that "We will be saved—if we are lucky—by the men who are able to use all that is in them—their minds, their senses, and their hearts—as fully developed human beings."[4] He goes on to say:

> The primary function of our schools is to teach people how to think, but a submissive person who has learned nothing but to accept what is told him cannot think well. A person who has been educated by forced feeding may be able to display a wondrous amount of knowledge upon request; but it will not have nourished him. Only a free person who has sufficient confidence in himself to offset the constant battery of pressures from without can truly think.[5]

In our concern for the realization of human potential and for mastery of our rapidly increasing fund of knowledge, we may force feed our children and actually reduce their achievement of self-management. This possibility is reinforced by several streams in our culture: certain attitudes toward child rearing and certain ideas about teaching and learning processes which will be discussed later in this chapter.

Dr. Murphy's comments, therefore, have deep implications for both parents and teachers. In a few strokes, she lays bare the potent idea that the way a child is helped to explore his world may very well determine whether he develops the capacity for self-management and the consequent spontaneity of expression of feelings and pursuit of ideas that are so necessary to the child's realization of his fullest resources or potential.

Can it be that in our desire to challenge young children and in our zeal for more efficient learning, we may be instituting practices that actually reduce their achievement of self-management? A review of Murphy's major ideas may be useful in providing the basis for an educational analysis in terms of this question.

A Viewpoint on Self-Management

Self-management is concerned with (a) the capacity for *independence* in meeting one's own needs and dealing with the environment and (b) the capacity for *self-control* or managing one's impulses and drives. Murphy sees these two aspects as interwoven, since the capacity to develop constructive patterns of self-care, work and the like implies capacity to channel one's impulses and to understand clearly which areas are taboo and which are actually open to expression.

To these aspects of independence and self-control, Dr. Murphy also adds (c) the area of *adjustment,* which focuses on the child's problem of managing demands and pressures from the environment (coping) in such a way as to keep tension within tolerable limits and of handling constructively the anxiety aroused by the normal, expectable conflicts and stresses of life in the family and in the community.

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[4] Elmo Roper. "Learning Is Total." *Saturday Review* 41: 20; May 24, 1958.
[5] *Ibid.*

Of special significance to educators may be Murphy's observation that from within the child, drives such as curiosity; the desire to perceive clearly, to test reality, and to know; and activity drives, including tendencies to manipulate objects in order to create new things—all play a part in the development of independence in dealing with the environment and in managing oneself. These are reinforced and augmented by influences from deep sources in the child's impulse life. One notes with concern, therefore, a tendency in school programs to narrow the channels of experiencing and exploring to highly structured symbolic materials as early as possible.

In her analysis of the evolution of autonomy in young children as observed in her Kansas studies, Murphy emphasizes the importance of the freedom that was afforded these children during the time of the blossoming of their locomotion and motor development. She sees the blossoming of motility and its twin, autonomy of the ego, as fostered by minimal interference or frustration by overbearing adult guidance.

Her conclusions on this point are worth repeating, for they have high significance for school programs:

> Not only does the child have an opportunity to develop a feeling of independence in his explorations of the environment but this in turn brings with it a rich experience of autonomous observation, perception, discovery, inference, and formation of concepts and of opinions of the world around. . . . the autonomy promoted by freedom for the use of developing motility extends the child's cognitive resources and provides a basic foundation of spontaneous and genuine cognitive relatedness to the world.[6]

And then, Dr. Murphy makes a key observation:

> This directness of contact with the world, and the freedom from the need to rely upon second-hand grownup interpretations and concepts to the extent which results from closely supervised movement in the environment during the first seven years of life, evidently helps to explain the spontaneity of the children's ways of dealing with new situations and new adults.[7]

Autonomy, as Murphy sees it, means not only the capacity to do independently that which is culturally expected but includes the child's capacity to respond and to deal with demands from adults in his own way. She affirms that the freedom to explore and to discover, to find one's own answers and to solve one's own problems, underlies the achievement of realism in children.

The scope of realism and the child's accumulation of substantial, accurate, dependable knowledge of his surroundings also act as a counterpoise to the pressures from internal sources of stress and conflicts typical of children in American society.

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[6] See preceding chapter.
[7] See preceding chapter.

Dr. Murphy also comments that among children who are thriving, autonomy is strong but well balanced with ability to seek and ask for and use help when the child has come to the limit of his own resources. This need can be related to the child's wish and need to respect adults and their capacity to control the child. Identification can be fostered by helping the child to understand his own need for help in control. Furthermore, she warns, we cannot automatically assume that children can maintain a high level of autonomy under all conditions and without any let-down.

In the area of adjustment, Murphy focuses on the child's problems of managing demands and pressures from the environment in such a way as to keep tension within tolerable limits and of handling constructively the anxiety aroused by the normal, expectable conflicts and stresses of life in the family and in the community.

Great differences exist in the capacity of small children to understand their own feelings and needs and the feelings of others. Murphy observes that those trends in our culture which compel children to repress their feelings to the extent that they can no longer be aware of angry, disappointed or sad feelings make it difficult or impossible for children to develop insight into and empathy with others.

She concludes that while children need limits, they also need areas of freedom for spontaneous discovery of the world, expression of feelings, and pursuit of their own ideas if they are to develop their resources fully.

Learning and Personality Development

We are greatly preoccupied at the present time with the task of improving learning in our schools. Perhaps the most important contribution of Murphy's paper is her reminder to us that there is a fundamental relationship between learning and personality development. This position has been stated in other words by Barbara Biber:

> We hold that the two interact in what we speak of as a "circular process." Thus, in our view, mastery of symbol systems (letters, words, numbers), reasoning, judging, problem-solving, acquiring and organizing information, and all such intellectual functions are fed by and feed into varied aspects of personality—feelings about oneself, identity, potential for relatedness, autonomy, creativity, and integration. We believe further that the school has a special area of influence for healthy personality because it contributes to the development of ego-strength.

How a child is taught affects his image of himself, which in turn influences what he will dare and care to try to learn. The interdependence of the two are inescapable. The challenge is to provide schooling that will make the most of this circular growth process toward greater learning power and inner strength.[*]

Emerging in educational literature are many controversies and proposals about the curriculum needed by children and youth for a future we can but dimly foresee. In her chapter in this yearbook, Alice Miel has reflected most provocatively upon a possible new approach to the organization of learning experiences. Not only must we come to terms with such questions as how structure for the mastery of experience can best be developed by individual children and how and when to provide form, skill and organization; but also when to provide for and nourish the emergent exploratory processes and when to tighten up what is open and loose.

We are hampered in these tasks by some of our child-rearing practices and by some of our views about the teaching-learning process. For example, we are not only preoccupied with linear learning, as McLuhan indicates, but also with linear time concepts. We see time as a long line. Each day we lose a piece of this line. "Time slips away from us!" So we take each daily piece and fill it as full as possible, because tomorrow it will be gone. Imbued with this concept of time, we are in a hurry—to fill up time, to make the most of it. And we are in a hurry for our children.

In a time when automation gives us increasing leisure and a surplus labor market, we seem preoccupied with getting children through school sooner. If a student can do four years of high school in three, we rush him through, rather than taking the view that, having covered the conventional requirements, he now has time to browse, to explore, to cultivate new areas of interest.

Premature Structuring

And now, we move this haste down upon the younger ones. Parents and many administrators and some teachers seem to believe that the sooner a child learns to read the better. And if he can cope with a workbook on Euclidean geometry, that is even better!

I recognize, in all fairness, that such proposals are conceived of as challenging the child and stimulating his intellectual development. But it is quite possible that they represent a kind of forced feeding that short circuits the very process of autonomy we desire for children. If we pay heed to Murphy's conclusion that for at least the first seven years of childhood we should provide directness of contact with life and free children of the need to rely upon second-hand, grownup interpretations and concepts, then we may think long before we introduce to very young children highly organized materials that demand careful direction from adults. By channeling children into such materials before they have developed initial autonomy, we may teach them to become cue-oriented learners, dependent upon the authority of the teacher. In a highly insightful statement on premature structuring, Biber points out that

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[*] Barbara Biber. "Introduction" to: Jerome Bruner. *After John Dewey, What?* Publication No. 54. New York: Bank Street College, 1961.

> . . . education traditionally has imposed a structure of didactic instruction, right-wrong criteria, dominance of the logical-objective over the intuitive-subjective on the learning child so early in the course of emergent awareness of his world and of himself that, except for unusual individuals, creative potential is inhibited or, at the least, diminished.[9]

From our viewpoint, the need for greater challenge to children will not be met by moving down academic subject matter and tightly structured approaches. But we can agree that greater challenge is needed. The curriculum we provide for young children needs rigorous reexamination.

A visit to a typical kindergarten may impress one that the teacher's main objectives are that children listen patiently for instructions, sit quietly on the rug, always hang up their coats, and use materials nicely. They are "getting ready for first grade"—a first grade that is a succession of basal textbooks and workbooks. One has only to read Barker's[10] account of one boy's day in Mid-West's second grade to see an all-too-typical dearth of experiences involving challenge, discovery, and exploration and of opportunities to learn much self-management other than that of following teacher directions.

The other extreme to this rather narrow, direction-oriented curriculum of linear learning is seen in the classroom described by Henry[11] in which teachers, feeling that there has been too much impulse restraint and seeking self-expression for children, relax controls in a pseudo-notion of permissiveness and let children be "free."

An Experimental Study

We wish neither of these extremes. And there are many skillful and thoughtful teachers who do see challenge as lying in an environment rich in intellectual, social and affective experiences in which young children are permitted and helped to shape their perception in their own ways and discover their ability to experience, organize and manage their world in ways that make sense to them.

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[9] Barbara Biber. "Premature Structuring as a Deterrent to Creativity." *American Journal of Orthopsychiatry* 29: 280-90; 1959. p. 281.

[10] Robert G. Barker and others. *One Boy's Day.* New York: Harper and Brothers, 1951.

[11] Jules Henry, *op. cit.*

The product of an open system approach to learning with second-grade children has been beautifully demonstrated in an experimental study by Crabtree.[12] Dividing a classroom of children into two groups and using dramatic play within social studies areas, Crabtree subjected each group to two different teaching methods. One purpose of her study was to determine whether different approaches to structure ("organization imposed upon the learning situation") would effect differences in children's predispositions to thinking. The second purpose was to measure the effects of each program on children's participation patterns.

In Program A, a program of emergent structure, the teacher opened to children extensive opportunities for the exploration of ideas initiated by them. Children's interests furnished the cues for the sequence of these discussions as well as for the pacing of them. The teacher was responsible for adding substantive depth to the discussions. Each time, however, subject-matter resources and teaching aids were withheld until the children's cues had established them to be relevant.

In Program B, a program of predetermined structure, the teacher instituted rigorous limitations on the self-direction of children's thinking. Discussion topics were teacher-selected. Children's responses to the circumscribed discussions initiated by the teacher were consistently evaluated for their conceptual accuracy. "Right-wrong" criteria dominated this program. The norms of the adult world and the precisions of deductive logic established the guidelines.

Both teaching programs utilized the same content areas, a study of harbor and airport activities. The teacher's role was an active one, but in each program she behaved differently. In Program A, her behavior was highly integrative. She supported children's ideas, gave assistance in the development of their purposes, encouraged the children in identifying and defining their own interests and problems within the content area, and elicited from children "open-ended" responses, choices and hypotheses. The teacher's responsibility was that of actively establishing a classroom climate which supported independence and initiative in thinking while at the same time giving necessary assistance to assure that such thinking would develop with depth and consequence. In Program B, the teacher was directive, gave commands, structured discussions, gave evaluative responses to children's ideas, and held the children to the development of systematic, logical lines of deductive reasoning within the delineated content area.

In both programs, the children's study began with a discussion period. During this time, the subject-matter content was developed and children's predispositions to thinking established. The discussion period was followed by a play period in a dramatic play center where the children developed, in play, patterns of harbor and, later, of airport activities. The teacher now became a nonparticipating onlooker. No limitations were placed upon children's self-selection of their own lines of response. What differences occurred under these two programs was a function of the type of structuring that had occurred in the discussion period.

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[12] Charlotte Crabtree. "Effects of Structuring on Productiveness of Children's Thinking." Stanford, California: Stanford University, 1961. Unpublished doctoral dissertation.

In Program A, the play environment was unarranged and consisted of somewhat ambiguous materials. In Program B, the play environment was prearranged and included materials of high realism so organized as to invite certain patterns of response.

The children in one group first experienced Program A in the harbor study for three weeks, then Program B in the airport study for another three weeks. The other half experienced Program B first, then Program A. So the groups served as their own controls.

Results of the Study

Space will not permit description of the elaborate and careful data collection and evaluation design. Only a few of the findings can be reported here.

This study concerned itself primarily with products of divergent and convergent thinking. Divergent thinking was expressed in those responses in which children created new patterns of play, organized materials for new uses, imposed original ideas upon a field of play, or extended into it new organization and order. Such thinking was characterized by originality, spontaneity, and flexibility of response. It was found that in Program A, divergent thinking composed a mean 48 percent of observed thinking responses. In Program B, it totaled a mean 18 percent. The difference was significant at the .001 percent level.

Highly significant differences were similarly observed between Programs A and B in children's convergent thinking. Thinking was held to be convergent to the degree that it was conceptually accurate and logically deductive and led to the correct but restricted conclusions that a well-defined situation was intended to invoke. Children's play responses were convergent when they were accurately performed, realistic, "proper," expected, and primarily routine. Convergent thinking dominated in Program B. The mean percentage was 54 percent as compared to 21 percent in Program A. Again, this difference was significant at the .001 percent level.

It was concluded that the program which withheld teacher-structuring (Program A) and encouraged children's wider exploration of the ideas they themselves initiated, established predispositions to thinking which were maintained in the play periods that followed and also encouraged high, immediate involvement in play. It was also found that there was a higher incidence of imaginative, constructive play in Program A which eventuated in sequences that incorporated real information.

There occurred delightful instances of children's innovations in Program A. Two boys created an elaborate communications system between the airport and the imaginary town. One can only refer the reader to the actual study to savor fully the implications for self-management and creativity in children.

Teacher behavior in Program B was typical of the linear learning that McLuhan describes in his chapter. Such behavior and learning are highly characteristic of the predetermined, directive lessons that constitute most of our classroom tasks.

One can only ponder, at this time, the strategies needed to persuade parents and many educators that we shall achieve much more challenge, even in cognitive areas, if we encourage such open systems for learning as characterize the Crabtree study. Anderson describes the "open system" as "a stimulating system of relationships which accepts uniqueness in perception and thinking." He defines the impersonal "closed system" as "concerned mainly with memorizing facts, formulas, and beliefs, and the acquiring and storing of information." [13] There is no doubt that we need to use both systems at different times. The tragedy is that we have so few open systems in practice in education.

Autonomy in Cognitive Learning

Murphy has developed the importance of open systems of learning for young children and has implied that a strong early blossoming of autonomy in a child will be reflected in his adult life. Anderson is suggesting that we need to concern ourselves throughout our educational program with open systems of education. He comments that almost all of our traditions and psychological theories about learning and problem solving have been obtained from "fixed-answer" or closed-system experiments. Psychologists, he says, know practically nothing about open-system learning.[14]

Therefore, to find psychologists who are beginning to explore children's thinking in terms of the uniqueness of perception, of cognitive style, and of individual structuring of knowledge is highly exciting. Richard Suchman of the University of Illinois is one such psychologist. His work deals with the development of autonomy in cognitive learning among elementary and junior high school age children.[15]

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[13] Harold H. Anderson. "Creativity and Education." *Educational Horizons*, Vol. 40, No. 2; Winter 1961-62. p. 123.

[14] *Ibid.*, p. 124.

Suchman states[16] that he was first challenged to enter this field of investigation when he began to have close association with schools and was struck by the passivity of students. They either absorbed ready-made conclusions or looked to "authority" (the teacher, the book, the answer sheet) for answers. Furthermore, they seldom asked questions or sought to develop answers of their own. From his observation, he came to conclude

> . . . that classroom teachers do too much teaching and their pupils do not do enough thinking! Teaching can—and often does—*get in the way of thinking!* . . . the child is not supposed to assume the direction or control of his own learning activities. He is expected to be a docile learner.[17]

The assumption that it is the fundamental task of the informed to enlighten the uninformed is questioned by Suchman. Instead, he proposes to help children develop the strategies of inquiry so that they become autonomous thinkers—individuals who do their own thinking rather than merely respond to the direction and control of someone else. He believes that the human apparatus is best equipped for doing its own job of assembling and processing data and abstracting concepts, principles and generalizations. In taking this position, he is not alone but joins a group of researchers (Bruner, Atkin) who are exploring the processes and products of "discovery learning."

In his own project, Suchman has developed a program for training children in inquiry procedures. While he has used materials from the field of physics, his objective is to develop strategies of thinking that will apply across the fields of knowledge. Another research project will test the application of inquiry training to social studies problems.

Suchman, in his present program, shows children a short silent motion picture demonstration of a "problem episode." The episode is highly concrete and clearly and immediately intelligible to the student; that is, he can observe the actual phenomena, not just hear them talked about by the teacher. The child sees something happen which he cannot explain, which has an outcome that he could not have predicted. For example, in one episode, a varnish can containing a small amount of water is heated over a flame, corked, and observed to collapse as it cools. Why does it collapse? Most people, Suchman finds, turn to the nearest authority at hand and ask, "How come?" Suchman wants them to take the initiative, to piece together explanations under their own power.

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[15] Richard Suchman. *The Elementary School Training Program in Scientific Inquiry*. Urbana, Illinois: Research Board, University of Illinois, 1962.

[16] In personal conversations with the author.

[17] Richard Suchman. "Inquiry Training: New Roles and Goals in the Classroom." Mimeographed materials; undated.

To teach them to do this, he has set up a training strategy in which he becomes the source of data, but the pupils must ask him the kinds of questions to which he can respond with "yes" or "no." He reports that at first this is very painful for children. They seem to have no idea how to begin to ask questions based upon hypothetical thinking. They do not even know how to question for factual information. It takes much support and a few cues before they gain skills. After each session, the group, under Suchman's guidance, criticizes its procedures. Inductively, in the critique session, the children review under his guidance which questions were effective and why. They are guided through a scheme of operations that has three stages: (a) episode analysis—"getting the facts"; (b) determination of relevance—narrowing down the facts; and (c) induction of relational constructs, a stage at which hypotheses are formulated and tested. They gradually learn a strategy of inquiry.

Obviously, it is not the province of this chapter to report the Inquiry Training Project in detail. But I have had the opportunity to observe children working on the problem episodes, in the third and sixth grades and, once, in a first grade; the results are exciting. Even after one or two sessions, one can see autonomous thinking emerge. Children become completely absorbed with the problem. Once they begin to make progress, you can feel on their part a growing sense of self-confidence and power.

The child who discovers that he is able to formulate a rule or a law from a series of concrete observations or experiments comes to realize that he is able to find ways of predicting and controlling his environment. He finds this sense of power tremendously rewarding. Such a sense can have an enormous effect upon his self-esteem. Once a child becomes convinced that his environment is orderly and predictable, Suchman reports, he is able to sustain the necessary prolonged and tedious searches for hidden rules and regularities.

Implications for Learning Theory

The typical child behavior in this process of training has deep implications for learning theory. While the children undergo these inquiry sessions in small groups (6 to 10 children, usually), no two children behave exactly the same way. They are often random and seemingly unsystematic in their questioning. One child may be hypothesizing, while the child next to him is asking questions of fact. Suchman reports that the fact that one child has formulated the answer to a problem and voiced it "out loud" often does not affect the questions of the child next to him. He has not heard the answer, because he is not at the point in his own thinking at which he is ready to process the pertinent data that will make the answer comprehensible to him.

Each child must develop his own conceptual system. He goes through a process of assimilation (Piaget) and accommodation, and only *he* can modify his previously held concepts to accommodate new data.

Suchman makes some interesting observations. When children become autonomous learners in cognitive areas, he feels that they reduce their need for emotional support while dealing with cognitive materials. They gain their strength for the task from their knowledge of the strategy of inquiry and the satisfaction that comes with increasing problem-solving power. He further notes, with regret, that teachers often unwittingly interfere with children's thinking by imposing extraneous material on the situation in an attempt to be helpful.

My own experience, in another medium, parallels Suchman's in many ways. We have developed problem-stories [18] which stop at the dilemma point and invite exploration for solution through role-playing. The stories involve crucial situations in the interpersonal relations of childhood; for example, what to do when your club insists that you do something and your father says "no." The dilemma is so vividly delineated that the child becomes deeply enmeshed in difficulties that are typical of childish efforts at expedient solution. Then the story stops and role-playing begins.

In this procedure, emotions are facts that become usable data in exploring the problem. Again, the teacher (role-playing leader) helps children, in action, to explore for themselves what is happening, who is involved, how they feel, what will happen, what is the consequence of the line of action chosen. In such reality practice, children learn to apply problem-solving procedures, exploring as many alternative lines of action as are available to them. Here, too, they process data in their own way, test out proposals, and sometimes draw conclusions.

They learn, as in Suchman's procedures, to tolerate the frustration that goes with the search, to face the complexity of the problem, to make progress, sometimes to see several possible solutions, and sometimes to end with no clear solution at all. In human relations problem solving, we sometimes settle for better understanding of the problem rather than closure. In both these procedures, children learn from error as well as from discovery of right answers. They learn the negative consequences and can back off and try again.

Suchman speculates in intriguing ways on the idea of making data available to children in various forms (files, open-system programmed materials, etc.) and on the problem of developing teaching programs that will permit children to process such data in their own ways, to become truly autonomous learners.

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[18] Fannie R. Shaftel and George A. Shaftel. *Role-Playing the Problem Story*. New York: National Conference of Christians and Jews, 1952.

We have in these last few sections been concerned with autonomy of learning in cognitive areas. We have glimpsed the possibilities of refining our procedures for teaching children open systems for exploring fields of "structured" knowledge. It might be interesting to contemplate the probability that the structure of knowledge in the disciplines will change as we increase the knowledge available to us and develop new systems. Perhaps, then, we need to focus on helping children acquire the search strategies for building their own structures for understanding any field, even as it changes.

Social Influences on Self-Management

In many subtle ways, children are impeded or helped in their struggles toward autonomy or self-management by the social climate of their life space.

Their capacity to maintain the autonomy they have achieved, to regress when necessary, and to support and develop ego strength is, for example, often highly related to the support or opposition they experience from their peers. The studies conducted by Ronald Lippitt and his colleagues in the Institute for Social Research at the University of Michigan would seem relevant here. Lippitt states:

> One of the two most important and influential environments for the child is the classroom in which he lives during a part of each day. His relations with his teacher and with his peers are two major aspects of his school environment. These relations have a variety of important meanings for the child: "What is expected of me? What can I do and what can't I do? Who do I like? Who don't I like? Who's the strongest?" . . . Stratification becomes clear about those who are looked up to and down on in various ways. Each child finds a position or several positions, in this socio-emotional structure. This social structure becomes a dominant aspect of his school environment and of his total life situation. His position in this structure becomes a very important determinant of his personal health situation, and of his motivation and ability to participate in classroom interaction.[19]

Lippitt and Gold [20] conducted a research exploration of classroom socio-emotional structure in a sample of 39 elementary classrooms. They found that difficulties are created and maintained by a circular process contributed to by the individual child, his classmates, and the teacher.

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[19] Ronald Lippitt and associates. *An Inter-Center Program for Studies in Children, Youth, and Family Life of the Survey Research Center and the Research Center for Group Dynamics.* Ann Arbor, Michigan: University of Michigan, n.d.

[20] Ronald Lippitt and Martin Gold. "Classroom Social Structure as a Mental Health Problem." *Journal of Social Issues* 15: 40-49; 1959. p. 40.

When they looked at the group as a source of difficulty for the individual child, they found (a) a very rapid evaluative labeling of a child and a strong tendency to maintain this evaluative consensus in spite of further information about the individual child, (b) very inadequate skills of the group in providing the member with feedback which communicates sympathetic guidance rather than rejection or ignoration, and (c) a lack of group standards concerning the acceptance and support of deviancy.

When they looked at the role of the teacher in the situation, Lippitt and Gold noted (a) a lack of teaching effort focused on developing personal attitude and group standards about group relations, (b) a lack of interpersonal grouping practices and other procedures guided by good mental health goals, and (c) a lack of clear presentation of behavior patterns toward low status children which could be imitated by other pupils.

Lippitt has commented elsewhere [21] that one of our most important tasks in schools is to develop cohesive groups in classrooms. He defines a cohesive group as one in which children like one another and will support variability among the members.

Use of Role-Playing

In our work with role-playing, we have encountered dramatic examples of ways in which a poor socio-emotional climate in a classroom can attack the ego of a child and weaken his ability to be self-managing. This past year for example, as a visiting professor at a Midwestern university, I undertook to demonstrate role-playing for a graduate class. I "borrowed" the sixth grade class of one of the laboratory school teachers. The story we explored was concerned with a boy who was "different" and rejected by most of the class. Although he had a specific skill that was useful to the class, he was deliberately overlooked for a highly prized job in favor of the popular boy who was good in sports. Even after he demonstrated courage and skill in an emergency, he was still not chosen when a second opportunity for choice occurred.

The children, in responding to the story, role-played a number of enactments in which they consistently rejected the boy's effort to be chosen. Some children, playing the rejected boy, became quite intense in portraying his feeling of frustration.

In a critique after the session with the regular teacher of the class and the observers, the teacher revealed that this class had had an unfortunate relationship with an upset teacher the year before and that they were organized in little cliques and were "driving her to distraction."

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[21] Remarks at Western Research Conference, Association for Supervision and Curriculum Development; Palo Alto, California; 1960.

Observers reported that when certain children played the rejected boy's role (they had volunteered), a hostile group of boys in the rear of the room had muttered, "He thinks he's smart!" and made other similar derogatory remarks.

The teacher then commented that these boys were followers of Tim, who was the power figure in the room, and that the role players had been children who were low in status in the class social structure. We then recalled that in discussion Tim had commented that the class would never permit the rejected boy to have the job unless H——, the popular (and egotistical) boy, had said he could!

As a result of our diagnosis of this class's situation, we structured a series of role-playing sessions around a group of problem-stories on "how it feels to be left out." In one session, we involved Tim in a camp counselors' meeting and when I asked, "How does Andy feel?" Tim blurted out, "He feels that he is nobody, nobody at all!" With encouragement, Tim expanded on this feeling and his followers began to enter in and contemplate with us how it feels to be left out.

The involvement of Tim was a turning point in that classroom situation. Many other procedures were used, such as open-ended sentences for free writing and reaction stories. Gradually, the teacher reported changes in the treatment of marginal children and a new climate in the classroom. Several children who had been unable to manage their academic work became productive and began to make real progress.

Epperson, Luszki, and Schmuck, colleagues of Lippitt, report similar observations in some of their studies.[22] Their findings indicate that successful human relations are important to the achievement of academic tasks; they conclude that the teacher should do everything possible to enhance a pupil's ability to obtain emotional support from his peers.

Pauline Sears, in her Project on Achievement Motivation in Elementary School Children,[23] finds that the class structure, the way a child fits in, and the interactive behavior of the teacher all influence the way a child is regarded by others. The child knows his reputation, and it is difficult for him to change. Sears's study shows that when children receive supportive feedback from the teacher, they improve in achievement and become more original and creative. It is interesting to note that Sears also finds that if a teacher is supportive to an individual too publicly, this seems to have a bad effect on the child. The teacher can publicly praise a group but not the individual.

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[22] D. C. Epperson, M. B. Luszki and R. A. Schmuck. *Interpersonal Relations and Mental Health in the Classroom.* Inter-Center Program of Research on Children, Youth, and Family Life. Ann Arbor, Michigan: University of Michigan, 1961.

[23] Pauline S. Sears. "Achievement Motivation in Elementary School Children Project." Stanford, California: Laboratory in Human Development, Stanford University, 1962.

The studies of Lippitt, Sears, and others all emphasize that the individual is an individual by virtue of his membership in a group or groups. While he achieves self-management through his own efforts in proper climates, he must experience over and over again that he is worthy and valued and that he is a person who is permitted to make choices. At the same time, he must learn the boundaries of self-determination.

Such findings have tremendous implications for teaching. Some of these are made explicit by Epperson, Luszki, and Schmuck. They suggest a variety of techniques for improving the classroom distribution of affect: (a) organizing a cooperative study group in which high and low status pupils work together for the achievement of some common goal; (b) working low status children gradually into roles which are viewed as having considerable status; (c) including information and discussion in the classroom about the nature of individual differences; (d) developing school programs directed toward a greater understanding of behavioral causation; (e) working on our own behavior as teachers toward accepting each pupil as an individual, understanding his limitations, and giving him the kind of support he needs to expand his assets and help overcome his shortcoming, thus setting a pattern for his classmates; and (f) giving classroom-relevant rewards directly by making positive comments about pupil performance or by organizing learning experiences so as to maximize success and reduce failure.

Promising New Practices

We are beginning to build positive programs to support the self-management that Murphy has delineated in her paper. While there are many pressures to force feed children and sometimes to treat them instrumentally in terms of immediate national goals, sound theories of human development do exist and demonstrations of supportive school procedures can be found.

A Case Example

For example, in the Cupertino Elementary School District in California, a pilot program begun in 1956 has explored the value of using a guidance person in each school. This person's role was defined as being "To help children profit from the learning experience, by helping them approach the classroom in their most optimum condition for learning and by offering them an instructional program appropriate for them."

The following account of the program is abstracted from a mimeographed report[24] of their efforts:

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[24] Prepared by Norma Randolph, guidance consultant, and William Howe, elementary principal.

In 1957, the guidance plan was extended to all eight schools of the district. As the district grew in number of schools, the program kept pace and at present functions in each of the 28 buildings. The method the plan has utilized is as follows: (a) confrontation of the problem limiting the individual from profiting from the education experiences; (b) participation of those concerned (students, parents, community resources, etc.) in the solutions to the problem; and (c) use of each participant to enhance the self image of every child involved.

In 1960, the guidance coordinator set up six classrooms of seventh grade students as an action research study in the use of the problem-solving way of working. The students involved were described by their teachers before the study in this manner: "Regardless of what material or activity we present, the group reaction is: 'Do we have to do that? Is this seventh grade material? Aw! It's too easy!' " The general characteristics of the students were: achievement below grade level, generally no lack of scholastic potential, degrees of emotional tension ranging from mild to severe, perception of themselves as being seen by the rest of the school as the dumbbells and delinquents, negative feelings about self-worth, conditioning of the individuals to external controls as opposed to self-control, and concomitant conditioning to external direction rather than self-direction.

The hypothesis of the study was that the inner condition of the students was such that they were unable to make use of the method of instruction offered. The solution to the problem might lie in changing the method of experiencing, hoping that such action might change the present condition of the students.

An intensive problem-solving approach seemed to offer opportunities for deeper involvement of the students. Such involvement in turn might well lead to development of inner controls, self-direction, success experiences, and eased tensions. These in turn, like a chain reaction, might result in enhanced self images and in energy released to flow into productive channels of work, play, hope, faith and love.

The presentation. It was decided that the guidance consultant would present to the classes the idea that "The district needs you. It wants to carry out an action research project to see if there are more exciting ways for boys and girls to learn together." Action research was to be explained as a way of evaluating where we are, deciding on a new way, living the new way out, and then evaluating the new experience before using the idea in other settings.

The guidance consultant and the classroom teacher taught the class jointly in the initial stages of the project, with the consultant presenting the initial material, and with the classroom teacher interacting as the process got under way.

The problem solving began in three major areas:

1. "As we grow from infancy to adulthood, the expectation is that we grow more and more self-directing. How can we see that this is so?" Once self-direction became the long-range goal, control of self, materials, time and effort was quickly seen as necessary if the goal was to be reached.

Then followed: "How can we best accomplish this?" The consultant used Kipling's "Riki Tiki Tavi" as a clue. The conclusion drawn was that how we feel about ourselves is very important to our productive performance. How we treat others is very important to their growth and development into productive citizens.

2. The second area of problem solving involved classroom living. "There are 25 of us in this room. How do we live and work together?" In discussion and action, the children identified necessary group skills. Standards for each group skill were gradually worked out by the group as the need arose. It was explained that teachers are authority figures by right of their power to help. They are helping persons. They should post the group standard and then call for this when necessary. In the discussion, it was recognized that the teachers would control in emergencies or if necessary when one of the "human machines" could not effect its own control.

How to help individuals who might have trouble with control became a point of interest. The decision was made that the room should always maintain the standard (stable expectation). The group operating according to the standard should be protected. A student unable to come to and maintain the standard should be signaled to go away to the office or, after repeated difficulty, to his home, not for punishment but to get himself in hand and then return. Often in the early days if a student went to the office, a special friend would approach one of the teachers asking permission to go and return the student to his classroom.

3. A third area of problem solving had to do with subject matter. "What subjects are we expected to learn? Why? How much chance have we of meeting these expectations?" One group was not about to give up the defense of "dumbness." Upon learning their scholastic aptitude range, one boy expressed the general concern: "If we find that this is true, we'll have to go to work."

Evaluation of the program. The most significant change or progress that has been observed is the change in attitude and values of the students. Because of this change, there has been an increased self-motivation (the children have started to work because they want to, not because it is required), and there is increased confidence in their ability to attack problems. As a result, there has been decided improvement in the academic skills. They recognize their problems and are trying to do something about them.

In the past year the program has expanded. Seven junior high school teachers, their principal, and the guidance consultant have formed a faculty problem-solving group, meeting once a week to deal with problems they bring from their classroom work. Several teachers report on classes that have now become cohesive groups in which the children reflect a growing sense of self-respect and self-management.

In April 1962, the school district was decentralized by the superintendent into cluster groups of five schools each (four elementary and one junior high school, usually), so that teachers, principals, students and parents can participate, through problem-solving procedures, in exploring and developing their educational program.

The report emphasizes that the great need is for personnel to help teachers, principals and parents learn problem-solving techniques. In the old organization, teachers were accustomed to controls from and decisions handed them by district department heads. The new organization reverses the process. Decisions are the result of group processes in which only major needs affecting the total district are channeled to the offices of the superintendent.

In addition, the report points out, teachers need to learn more about how to "problem-solve" with children who for many years have been conditioned to controls from "without" rather than self-control. Teachers also need training in how to offer experiences in self-direction rather than the usual pattern of direction from the authority figures.

Problem solving is not easy, but it is most rewarding. One of the fifth grade problem solvers expressed it well. When the class was complimented because the "human machines were really beginning to show self control," a boy blurted out, "I do hope you realize it hasn't been easy!"

Another boy, an eighth grade child of Mexican background, with a very controlling father, expressed it another way: "Mrs. Randolph, I'm trapped in a corner. I want to stay in this class very much, but I also want to get out just as much. Since I'm in a corner, maybe you will let me sit in this one here until I can join the group." Two weeks later he pulled his chair into the circle.

Teacher Education

It seems to this author that the Cupertino experience is a vivid demonstration of an implementation of Murphy's thesis. Furthermore, it places in focus the problems attendant upon changing our traditional stance about teaching.

In her studies of teacher-pupil relationships, Marie Hughes[28] has reported the extremely high percentage of directive behavior in teachers. Seymour Sarason, commenting on the present concern to increase the teacher's knowledge and grasp of subject matter in the sciences and liberal arts says:

> . . . it would be a mistake to assume that rectifying this inadequacy insures that children will be more effectively taught, that is, become more interested in the world of ideas, more aware of and secure in their powers of discovery, and more motivated to face and master a variety of developmental problems.[29]

He goes on to point out that the teacher is not merely a communicator of knowledge, but is rather a kind of psychological diagnosticator and tactician, vitally concerned with how children acquire and utilize knowledge and skill. He observes, "The means of learning affect the ends of learning."

In his conclusions, Sarason ponders the problem of teacher education. He has observed in his work with student teachers that they are intimidated in the sense of doing what they think is the right thing to do. He finds that students in training also experience directive teaching that limits their development of autonomy as future teachers. He challenges the teaching procedures in methods courses in teacher education programs and asks whether we can expect college students who are passive learners to guide children to self-directed learning.

In summary, it has been the purpose of this chapter to explore some of the possible implications of Lois Barclay Murphy's description of children's capacities for self-management.

Of the many possible implications inherent in her provocative report, we have chosen to speculate on the need for open, low-structured experience for young children, the challenge to continue open systems of learning in later years in both cognitive and social-emotional areas of learning and the need to develop strategies and programs that permit children spontaneous discovery of the world, expression of feelings, and pursuit of their own ideas in cohesive groups that are learning to support self-management in each other.

To these ends, we will have to concern ourselves with how teachers are helped to become autonomous individuals who, being free of intimidation and having acquired the sensitivity and skills necessary to this task, can sometimes act as gatekeepers, sometimes as bridges, sometimes as environment structurers, and sometimes as data providers but who are always concerned with letting children take their own next steps when ready and with lending the necessary support and controls in periods of regression and dependency.

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[28] Marie Hughes and associates. "Assessment of the Quality of Teaching in the Elementary Schools." Salt Lake City, Utah: University of Utah, 1958. Mimeographed.

[29] Seymour Sarason, Kenneth Davidson and Burton Blatt. *The Preparation of Teachers*. New York: John Wiley and Sons, 1962.

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RELATIONSHIPS | NEW MODES & THEIR MEANINGS

DURING the past 20 years, education has been much concerned with the problem of understanding and improving relationships between persons, between persons and groups, and between and among groups and cultures. Our continuing concern has taken many turns, at each of which new shades of meaning have been incorporated in the vocabularies we have invented or borrowed from relevant fields of knowledge. Adjustment, getting along with others, self and significant others, roles and life styles, self understanding, the self concept—these are familiar terms that mark our effort to move ahead in thinking out better ways to promote healthy personal development. We could cite similar examples from our interest in the effective functioning of persons in group settings and undertakings and from our varied emphases in intergroup and cross-cultural education.

The point to be made here, however, is that the fields to which we have gone for help in working through our concerns have been chiefly the social sciences. We have all had to learn the languages of sociology, social psychology, psychiatry, and anthropology. From our study has come a great array of useful new insights. From our study has come also, as Dwayne Huebner points out, a certain uneasiness. Science, even social science, seeks to know in order to predict and control. We have ourselves talked a good deal about human or social engineering of curriculum change and have wondered how we could go about restructuring the value systems of children from families unlike our own. At the same time, we have had warnings that a dynamic democratic society needs something more than a uniform product, however high-grade this may be. *Adjustment* and *conformity* have become targets for critics of the schools as well as of society.

The need is not, obviously, to abandon our hard-won understandings but to complement these with new insights from other fields, perhaps from areas directly concerned with values. In his chapter, Huebner introduces us to the ideas of a number of modern philosophers and theologians, ideas that may presently seem as unfamiliar as their names. These ideas center on new modes of relationship arising from the encounter between one man and another as free and equal human beings, possessed of but not by themselves and thus open to the "conversation" out of which new meanings, constructions, and languages can be learned and also can be created. While the sources on which Huebner draws most fully are philosophy and religion, he urges us to seek for new insights in the arts as well, particularly in literature. This chapter requires and rewards the most careful reading.

In his companion chapter, Robert E. Bills first of all assumes responsibility for helping us understand the new language of relationship proposed by Huebner. He does this by interpreting it in the vocabulary of perceptual psychology and psychotherapy. The respect for and support of the person in developing and testing his own ways of dealing with the world that he defines as central to the new psychology seem very much like the theme of the Huebner chapter. Bills then reports numerous studies that clarify and exemplify what the new modes of relationship mean in administering the school and in teaching children and youth.

Chapter 7

New Modes of Man's Relationship to Man

Dwayne Huebner

RELATING to others cannot be a goal of life or education, for it is the *sine qua non* of human existence. To relate or not to relate to others is not a choice offered to the child, nor even to the adult. The problem is not to relate to others, but to find a mode of relationship, and a way of talking about that relationship, which offer the greatest meaning today.

A possible motif is offered by Martin Buber: "Hearkening to the human voice, where it sounds forth unfalsified, and replying to it—it is this which is above all needed today."[1] Man does not have a choice to encounter or not to encounter his fellow man, but he may choose to converse or not to converse with the man he encounters. Paraphrasing Buber, it is conversation which is needed today, for it is through conversation that man finds fulfillment and, perhaps, joy in his human encounters without losing his freedom.

The meanings associated with the word "conversation" could be limited by direct definition. However, the significance of conversation as a mode of human relationship is drawn more neatly by characterizing other forms of human encounter. To do so requires an arbitrary choice from among possible ways of describing man's meetings with man.

Forms of Relating to Others

Free to use, and consequently to accept, the limits of modern man's knowledge, Schweitzer provides a starting point by acknowledging the "mystery in the relations of man to man." He states:

> We wander through life together in a semi-darkness in which none of us can distinguish exactly the features of his neighbor; only from time to time,

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[1] Martin Buber. "Genuine Conversation and the Possibilities of Peace." *Cross Currents* 5: 292-96; 1955. p. 293.

> through some experience that we have of our companion, or through some remark that he passes, he stands for a moment close to us, as though illumined by a flash of lightning. After that we again walk on together in the darkness, perhaps for a long time, and try in vain to make out our fellow traveller's features. To this fact, that we are each a secret to the other, we have to reconcile ourselves.[2]

The Central Question: What May Transpire?

Schweitzer describes an existential point of view, a view used by others for analytical purposes. Fromm, in developing his analysis of love, begins from man's awareness "of himself as a separate entity . . . of his aloneness and separateness." [3] The idea of man's solitude is used by both Berdyaev [4] and Ortega y Gasset [5] as a vehicle for probing man's relationship to society. Man's separateness, his aloneness, his "radical solitude . . . does not . . . consist in there really being nothing except himself. Quite the contrary—there is nothing less than the universe, with all that it contains. There is, then, an infinity of things but—there it is!—amid them Man in his radical reality is alone—alone with them. And since among these things there are other human beings, he is *alone with* them too." [6]

Accepting the basic mystery of man's relationship to man, and acknowledging that man wanders through life "alone with . . . other human beings," then what may transpire between man and man? This seems to be the question which guides the study of all human relations. The possible answers identify the various patterns of man's encounters with his fellow man. The instrumental use of man is legitimized by the myth of functional man, supported by a goal-oriented, need-directed psychology. Man must have food, shelter, clothing, recreation; and in a modern society, specialization of economic function means that man must learn to work for and with others for the achievement of the basic and learned needs. Other men are encountered as means to an end, as "objects-of-use." [7]

This kind of transaction between man and man is functional—goods are produced, services bought. For these purposes groups of men are bought and brought together, learn to coordinate their activities and strivings for production and service, and become part of an economic process. Man cannot live without economic activity, without his fellow man's being used instrumentally. But neither does he live if his encounters with the other man are only economic or instrumental.

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[2] Albert Schweitzer. *Memoirs of Childhood and Youth.* Translated by C. T. Campion. New York: Macmillan Company, 1955. p. 68-69.

[3] Erich Fromm. *The Art of Loving.* New York: Harper and Brothers, 1956. p. 8.

[4] Nicolas Berdyaev. *Solitude and Society.* Translated by George Reavy. London: Geoffrey Bles, Centenary Press, 1938.

[5] Jose Ortega y Gasset. *Man and People.* Translated by Willard R. Trask. New York: W. W. Norton and Company, 1957. p. 272.

[6] *Ibid.*, p. 49

[7] Ernest G. Schachtel. *Metamorphosis.* New York: Basic Books, 1959. p. 173.

Four Forms of Social Encounter

Within, and transcending, the instrumental encounters are those by which man attempts to overcome his solitude and aloneness; by which he tries to break through the barriers separating him from his fellow man. These are the uniquely social encounters in which man expresses his sense of freedom. At least four forms of the social encounters can be described.

First are those in which man attempts to deny, ignore or escape from his own sense of aloneness or separateness, or that of his fellow man. To do so he immerses himself in activities with others in which his own individuality is lost. He becomes part of the crowd, the mob, and as such there is no opportunity or need to establish his own identity. Consequently, the problem of his own aloneness or solitude is never brought to conscious attention. The hustle and bustle of life with others is an escape from freedom, an opportunity to get lost in the lonely crowd.

Likewise, man may ignore or deny the existence and aloneness of those he meets. Although coming within close physical proximity to another, he may fail to acknowledge, by speech or gesture, the other. Stereotypes and prejudices function effectively as conceptual tools of denial, for by quickly categorizing another person as a thing of no significance, the first person may ignore the second. Only when the stereotyped individual breaks through the stereotype, or within the stereotype intrudes into the active life of the other, does he become a person with identity, solitude and freedom, and thus a person to reckon with.

Next are those encounters in which man may recognize his aloneness or solitude and may seek to overcome it by making himself subservient to another. Wishing to reduce his separation from others, he gives himself without question and forms a parasitical relationship with a person who accepts submissive behavior. In so doing, the dependent person not only overcomes his sense of aloneness, but forfeits his freedom.

The obverse of this is also possible, for the person who accepts domination over another is also a person who seeks to overcome his separateness. He does so by possessing the other, by keeping the submissive person within his control. In these encounters, the possessive individual denies the other's freedom and his own, for he is not open to the other but is walled off by his own self.

These encounters of denial, submission and domination may be negatively valued as unhealthy or neurotic meetings, for in them man fails to accept his solitude, or gives it up, and in so doing sacrifices his freedom or that of his fellow man. In contrast to these encounters, man transcends his solitude when he accepts his aloneness and that of the person he meets and seeks a form of transaction which maintains the maximum freedom of each. In these meetings, man freely gives to and freely receives from the person he meets, for no other reason than that each recognizes that he is alone, separate, but able to give and receive from the other. For Ortega y Gasset and Fromm, this is the essence of love; the former defining "love as nothing but the attempt to exchange true solitude,"[8] while the latter recognizes that love is the way man overcomes "his separateness . . . [and] . . . leave[s] the prison of his aloneness."[9]

Love Is Not a New Value or Goal

But love is not a new value or goal, nor one that is easily redefined. For centuries men have thought and taught about this relationship of man to man. Motse, in the fourth century BC, wrote:

> . . . individuals have learned to love themselves and not others. Therefore they do not scruple about injuring others. . . . When nobody in the world loves any other, naturally the strong will overpower the weak, the many will oppress the few, the wealthy will mock the poor, the honored will disdain the humble, the cunning will deceive the simple. Therefore all the calamities, strife, complaints, and hatred in the world have arisen out of a lack of mutual love.[10]

And in *Leviticus,* the words which have helped shape the Hebraic-Christian tradition are found:

> You shall not hate your brother in your heart, but you shall reason with your neighbor, lest you bear sin because of him. You shall not take vengeance or bear any grudge against the sons of your own people, but you shall love your neighbor as yourself. . . .[11]

From almost every century other prescriptions could be found, or the same prescriptions couched in the language and style of the times.

The task is not to compete with these or other historical statements. They have an aesthetic value which makes them unique and irreplaceable. They should not be pushed into the past to be forgotten, but brought into the present, for they enable today's man to realize that today's goals were yesterday's goals and may well be tomorrow's. To attempt to redefine them in the language of today would be to foster greater estrangement from those who have shaped present values and modes of behavior.

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[8] Jose Ortega y Gasset, *op.cit.,* p. 50.

[9] Erich Fromm, *op.cit.,* p. 9

[10] Lin Yutang. *The Wisdom of China and India.* New York: Random House, 1942. p. 794.

[11] *Leviticus* 19: 17-18. Revised Standard Version Bible, copyright 1952 by the National Council of the Churches of Christ in the United States of America. Used by permission. New York: Thomas Nelson & Sons, 1952.

Whereas the most highly valued form of human encounter is probably love, as defined in the great religious classics, the topic is too vast to be developed within a few pages. Futhermore, the notion of love in human relations carries with it almost a mystical, esoteric sense, an idea of softness and romance or a feeling for the young or weak. Infrequently is it discussed in the psychological and educational literature. Gordon Allport conjectures about this coy concern for love:

> Why psychologists, by and large, have sidestepped the problem of human attachment is an interesting question. Ian Suttie speaks of it as their "flight from tenderness." He believes that in repudiating theology modern mental science overreacted, and in so doing deliberately blinded itself to the tender relationships in life so strongly emphasized by Christianity. Somehow it feels more tough-minded to study discord. The scientist fears that if he looks at affiliative sentiments he may seem sentimental; and if he studies personal attachments he may appear personal. Better leave the whole matter to poets, to saints, or to theologians.[12]

The vastness and ambiguity of the many connotations of love make it undesirable as a goal to be redefined and stressed here. Conversation, however, seems to be a form of love in action, for talk is "but a tinckling cymball, where there is no love." [13] The requirements of love, that a person freely give, freely receive, internalize that which has been received, and give once again from the newness of one's self, are also the requirements of true conversation. In this ongoing helical process, man attempts to break through his solitude, affirm the existence of the other, and meet him as an equal—free, alone, and of infinite value.

The Nature of Conversation

A "real dialogue is possible only if we are willing to be influenced by others." [14] Kwant thus states the necessary requisite if conversation is to occur, for conversation is not simply communication. Communication implies only the transfer of information from one to another, whereas conversation suggests that the recipient act on this information, reshape it or himself, and continue the dialogue at a new level. This "willingness to be influenced" demands an "openness toward the world,"[15] a relative freedom to face the events and people of the world, depending only partially on the categories and habits of the known. It demands that man recognize that he is never a completed "being" but is always in the process of "becoming," and hence is willing to find the new, the unexpected, the awe and wonder in that which he repeatedly faces or which he partially knows.

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[12] Gordon Allport. "A Psychological Approach to the Study of Love and Hate." *Explorations in Altruistic Love and Behavior*. Pitirim Sorokin, editor. Boston, Massachusetts: Beacon Press, 1950. p. 145-46.

[13] Francis Bacon. "Of Friendship." *The Essays of Francis Bacon*. New York: The Heritage Press, 1944. p. 83.

[14] Remy C. Kwant. *Encounter*. Translated by Robert C. Adolfs. Pittsburgh, Pennsylvania: Duquesne University Press, 1960. p. 59.

He who is free to converse with others retains an element of childlike curiosity about others; a curiosity based not on a desire to verify one's normalcy and worth, but on the acceptance of and awe for the complexity and the mystery of human life. He makes "an attempt at interpenetration, at de-solitudinizing . . . [himself] . . . by tentatively showing . . . [himself] . . . to the other human being, desiring to give him . . . [his] . . . life and to receive his."[16] Furthermore, conversation demands an acceptance and acknowledgment of the reality and value of the other person; not only of his equality, but of his fraternity and solitude. Acknowledging and accepting the reality, both "are aware of their duty to discover one another, to help one another onward wherever they encounter one another and to be ready for communication, on the watch, but without importunacy."[17] Both the speaker and the listener must be disposed to speak, to listen, and to accept the responsibility and opportunity for change.

Climate for Conversation Set by Listener

The listener, perhaps, establishes the climate for conversation, for it is he who determines whether the words addressed to him are simply to be acknowledged as words, or as signs indicating the willingness of the speaker to bridge the gap separating them. He may shrug off the words, listen for information, categorize the speaker, or wait to say his piece; or he may listen to the speaker, plumbing the words for the speaker's meanings, feelings and thoughts which are only partially symbolized He must be open to the speaker; the speaker senses this openness as an invitation to forsake his clichés, to expose his thoughts, to probe his own unformed notions, and to shape them so that he too gains new insights and satisfaction from the poetic form which they might take.

Listening, perhaps, requires a discipline, or at least a concentration, for it means full attention to the present. Steere[18] claims that "in order to listen discerningly to another, a certain maturity is required, a certain self-transcendence, a certain expectation, a patience." However, the discipline and the maturity might be necessary not because of the complexity of the listening act, but because the capacity for concentration has been lost as the child grows through a nonlistening, and frequently nonconversing, society.

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[15] Ernest G. Schachtel, *op.cit.*, p. 53

[16] Jose Ortega y Gasset, *op.cit.*, p. 93.

[17] Karl Jaspers. *Man in the Modern Age.* Translated by Eden and Cedar Paul. London: Routledge and Kegan Paul, 1951. p. 189.

[18] Douglas V. Steere. *On Listening to Another.* New York: Harper & Row, Publishers, Inc., 1955. p. 4.

Certainly the concentration and focused curiosity of the child who intently observes and listens to his new world suggests an openness which soon disappears, perhaps because being curious about and interested in people is not sanctioned. Curiosity about others, however, is not a passive, selfish act. The listener cannot listen only to satisfy his own desires. By his attitude, his interest, he listens actively; he extends himself to the other, making himself available to the other. Marcel makes a distinction between active and passive listening: ". . . there is a way of listening which is a way of giving, another way of listening which is a way of refusing, of refusing oneself." [19]

It is only when the listener places himself at the disposal of the speaker, that the latter finds the support to search that which is yet to be expressed. For in conversation, speaking should not be simply the utterance of the already categorized and symbolized. The socially validated and objective usages of conventional language, epitomized by mathematical and scientific language, are not vehicles for the formation and expression of the personal, the unique. They are vehicles *par excellence* for communication, prediction and control; but if "man were to use nothing but mathematical language he would become a robot and his brain an electronic computer." [20] Language is dependent on socially shared usages and an acceptance of common, objective categories projected into the world; but if accepted blindly, if the user reifies the concepts, then language obscures the world rather than opens it. The language of conversation is not simply a recitation of the already known, but "a pathway to the realization of ourselves." [21]

Speaking as a Creative Act

Conversation permits of more than passing the time between people. The art of speaking may be, and frequently is, a creative act. Langer [22] emphasizes that language, indeed any symbol system, is essentially a symbolic transformation of experience. Man is not content to experience, he creates order and gives form to his experiences. The order and the form, and the language which symbolizes both, are not simply handed down via an educational process. All men have the capability of creating their own form, not simply using that of others. Children use this capability. They are living examples that "to know the world means to sing of it in a melody of words."[23] Conversation provides opportunity for man to continue to sing of his world "in a melody of words," given the listener who frees the speaker and draws out his experience in new verbal forms. Free to sing of his world, in the presence of others and with others, he is free to engage in new symbolic transformations of his experience, and then, in opening himself to new insights, also to make them available to the other.

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[19] Gabriel Marcel. *The Philosophy of Existence*. Translated by Manya Harari. London: Harvill Press, 1948. p. 26.

[20] Ernest G. Schachtel, *op. cit.*, p. 191.

[21] Ernest Cassirer. *The Logic of the Humanities*. Translated by Clarence Smith Howe. New Haven, Connecticut: Yale University Press, 1961. p. 113.

[22] Susanne Langer. *Philosophy in a New Key*. Third edition. Cambridge, Massachusetts: Harvard University Press, 1960.

Probably few conversations attain the creative heights which are possible, but in all conversation man makes an effort to share his world, to make it known to his listener. Sharing a common language does not mean sharing the same world, for each builds his unique world out of his experience. It is this world in which man is alone, and it is this world that he tries to share with others in the social encounter. He can give to the other the world as he sees it—the people and the events and the hopes and fears which make up his own personal comedies and tragedies and explanations. It is this private world of each other that the speaker and listener try to interpenetrate, accepting their solitude, but ever ready to reach out to the other by speaking and listening. The world then becomes infinite, for man not only has the possibility of exploring the one material world within which he lives, but also of exploring the worlds which others have formed and are forming.

Speaking and listening lead to conversation only when the listening influences the speaking, and leads to new speaking, and perhaps to a new speaker and listener. Rollo May states that "the encounter with the being of another person has the power to shake one profoundly and may potentially be very anxiety-arousing. It may also be joy-creating. In either case, it has the power to grasp and to move one deeply."[24] Either the speaker or the listener may be moved or grasped by the significance of that which was revealed, the reshaping of a part of his own world, the void which now confronts him or the uniqueness or beauty of the expression. And from there the conversation continues contrapuntally, until each goes on his own way, significantly changed, with something more to his being "that has grown in him, of which he did not know before and whose origin he is not rightly able to indicate."[25]

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[23] Remy Kwant, *op. cit.*, p. 11.

[24] Rollo May. "Contributions of Existential Psychotherapy." *Existence*. Rollo May, Ernest Angel and Henri F. Ellenberger, editors. New York: Basic Books, 1958. p. 38.

[25] Martin Buber. *I and Thou*. Translated by Ronald Gregor Smith. New York: Charles Scribner's Sons, 1937. p. 109.

Conversation is thus an art. Not only an art of language, by which man finds new, aesthetically satisfying language forms and symbolizes the experience of his world; but also an art which leads to the forming of oneself and the other. By speaking and by listening, man can become aware of what he is and what he may become, and may help his fellow man do the same. Within the shared confidence of conversation, man may feel free to express that which he has not been able to express before, and hence to find the next step in his pathway of self-realization and the realization of the other. It is this which man needs today—to be able to accept that in conversation as a form of human encounter reality is found, solitude transcended, and life shaped.

The Importance of Conversation Today

The opportunities for conversation increase as population continues to expand and as technical advances multiply contacts among men. Large urban centers and multiple-family housing units, public transportation and communication facilities, and the extension of economic interdependence and competition reduce the distance between men and increase the frequency of meeting. Few people share the lot of the English sportsman, who could bid good morning and farewell:

> Stranger, when you appeared there on the horizon miles to the east, a speck silhouetted against the dawn, you stepped on my toes and bumped into me. Did you not feel the impact?
>
> Before you appeared this whole expanse was my body, and the light and color in it my mind. Then the collision occurred. Now look at me. My body is shrunken to a midget-trunk with four midget limbs. And my mind is in a skull.
>
> I felt the impact, Stranger. I bid you good morning—and a hearty farewell! [a]

In today's world this would be an idyllic existence, for collisions are facts of life, no longer with specks "miles to the east," and the farewells are few. Man is hemmed in by men, almost to the exclusion, for some people, of the natural, nonsocial environment. His encounters are no longer only with those who share the same language system, for he now meets those who also share significantly different value systems and language systems.

The Need for New Alternatives, New Values

If man does not learn to converse with those who surround him and impinge upon him, then he must find other ways of dealing with them;

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[a] Virgil C. Aldrich. "Beauty and Feeling." *Reflections on Art.* Susanne K. Langer, editor. Baltimore, Maryland: Johns Hopkins Press, 1958. p. 3.

either ignoring them or turning them into objects of use or control. Ignoring, controlling or using others leads eventually to rebellion, resistance and conflict, and a realignment of the power field which supports the using, controlling or ignoring. Superior power is not overcome by conversation, but when conversation is not accepted as a significant, indeed primary, form of encounter, then the use of power may predominate. It seems imperative that man learn the value of conversation so he will seek to converse before he seeks to ignore, control or use.

Conversation does not simply function as a preventive of strife and conflict, but, as suggested earlier, has inherent values. The increasing frequency and expanding scope of man's meeting with his fellow man can be perceived as adding to his opportunities for growth, influence and aesthetically satisfying symbolic transformations of experience. Through conversation with the many men who are now available, man has more worlds to explore, more melodies of words to sing, more values from which to select, and more bonds to establish with others.

The developments which have enlarged the possibilities of man's meetings with man have also interposed a world of machine, technique and function between man and man. Friedman speaks of "the technical environment":

> These numerous techniques have transformed and daily continue to transform the living conditions of modern societies, and, consequently, the relations between individuals. Every moment of life, every aspect is more and more affected.[27]
>
> This environment daily thickens, becomes more dense, more permeated, so to speak with all the techniques . . . [of production, transportation, communication, and leisure] . . . and envelops, on all sides, the men and women of our time.[28]

Indeed, man at times seems to be but a cog caught in the vast machinery that he has devised and frequently to have become subservient to the functional, day-by-day operation of that machine. The image created by Chaplin in *Modern Times* is no longer a comedy of man's possibility, but a comic-tragedy of his near actuality. For in the factory man is now hired to "tend" machines, to kow-tow to their needs, rather than to run them for his needs. Modern life, aimed at production, "plunges man into an atmosphere of cold metal . . . [eliminating] human warmth."[29]

Even in less machine-oriented environments, man is subservient to his "role." He must become an "organization man" and fit into the functional hierarchy of the structure. Man becomes a buyer, salesman, foreman, supervisor or customer. As a consequence, his relationships with his fellow man are determined by his occupational role. The elevator operator is someone who takes people up or down, not someone to talk with unless to ask information. A clerk is someone who sells goods to others, and the talk is limited to the buying and selling. The functional, economic contacts overshadow the social contacts epitomized by conversation. Saint Exupéry, in the simple profundity of *The Little Prince*, characterizes man's present condition as the fox asks the Little Prince to tame him:

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[27] George Friedman. "Technological Change and Human Relations." *Cross Currents* 10: 29-47; 1960. p. 31.

[28] *Ibid.*, p. 32.

[29] Nicolas Berdyaev. *Spirit and Reality.* Translated by George Reavy. London: Geoffrey Bles, Centenary Press, 1939. p. 66-67.

> "I want to, very much," the little prince replied. "But I have not much time. I have friends to discover, and a great many things to understand."
>
> "One only understands the things one tames," said the fox. "Men have no more time to understand anything. They buy things already made at the shops. But there is no shop anywhere where one can buy friendship, and so men have no friends any more."[20]

The Threatened Loss of Humaneness

"No friends" is a possibility within the technical order today, for, living with machines, techniques and functions, man is likely to attribute the qualities of these machines and functions to the man he meets, thus negating his fraternity and his freedom. But it is not inherent in the technical order that man be so treated, for he is still able to exert his control over the technical order in such a way that the humaneness of man stands out.

Conversation is important as a way of asserting this control over the technical. If the functional transactions are subservient to conversation, then man meets the other first as a person to converse with, then as a functional role. During or after or even preceding the conversation, the transaction may be carried on, but the giver and receiver have given and received more than their economically assigned product or process; they have given and received of each other. The organizational structure may be not only a means for the production, transportation and trading of goods and services but may provide channels for conversational encounters with others outside of the home or immediate community. Of course, there are barriers to conversation's assuming primacy in the functional orders, but the importance of conversation within these orders must nevertheless be recognized and reckoned with.

The importance of conversation stands out clearly as the expanding population is considered, and as the influence of technique and function spreads. Equally significant, but less readily recognized, is the importance of conversation if knowledge is to retain its role as a tool in human affairs, rather than being apotheosized. Cassirer clearly states the situation:

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[20] Antoine de Saint Exupéry. *The Little Prince.* Translated by Katherine Woods. New York: Harcourt, Brace & World, Inc., 1943. p. 67.

> No longer can man confront reality immediately; he cannot see it, as it were, face to face. Physical reality seems to recede in proportion as man's symbolic activity advances. Instead of dealing with the things themselves man is in a sense constantly conversing with himself. He has so enveloped himself in artistic images, in mythical symbols or religious rites, that he cannot see or know anything except by the interposition of this artificial medium.[31]

Separating man from man, and man from nature, is this symbolic curtain, frequently more powerful than the iron curtain, for man is likely to stop at the curtain rather than to go through it to deal more directly with man or nature. Modern man has found it too easy to accept *cogito, ergo sum,* not simply as a starting point for derivation of one philosophical point of view, but as the basic premise of all life. This results in a reification of the conceptual and an interpretation of knowledge as an aerial photograph of reality rather than as a man-made policy to guide action. The power of scientific knowledge, as evidenced by medical achievement and control within the physical realm, sanctions this reification. But all too often only those who create the knowledge, who test its validity and reliability for certain purposes but always also search for new explanatory schema, are aware "that in cognition we have moved in categories which, even in their totality, are like a fine filigree with which we grasp what at the same time we conceal with it."[32]

Learning Other Forms of Knowing

Scientific knowledge is but one way of grasping and shaping the encountered world, albeit a very effective way for purposes of control and prediction. Other forms of knowing also have their criteria of effectiveness: witness the effectiveness of the poetic, dramatic or artistic statement for the one who can interpret the symbols.

The reification of knowledge, whether in the form of scientific concepts, religious concepts, or simply common sense, is a danger faced by man today. The potency of mass communication in shaping the individual's grasp of his world, the deadly efficiency of scientific thought and the consequent desire to internalize only scientific thought, and the relative impotence of art in today's culture point to a tendency to standardize man's way of making sense of his world, and hence to deny the individual the freedom to make his own sense within limits. These limits are the limits imposed by his ability to converse with his neighbors and others whom he meets. Granted that scientific knowledge permits prediction and control, this and all other forms of knowledge are also vehicles for conversation, and it is through this conversation among specialists that the limits are defined, imposed and altered.

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[31] Ernest Cassirer. *An Essay on Man.* Reprinted by permission of Yale University Press. Garden City, New York: Doubleday and Company, 1953. p. 43. Copyright by Yale University Press.

[32] Karl Jaspers. *Truth and Symbol.* Translated by Jean T. Wilde, William Kloback and William Kimmel. New York: Twayne Publishers, 1959. p. 38.

If man is free to converse, then he is also free to set the limits which define his "sense" of the world. By being free to converse, he is also free to accept and create new symbolic transformations of his world and hence free from the hardening of the categories which plagues the prejudiced individual. By conversing with a variety of people who use somewhat different conceptual schemes, the individual is faced with the necessity of being flexible in his own conceptualization of the world. By talking with the poet, playwright, artist, theologian, and scientist, he recognizes that no single knowledge system gives adequate form to all that man faces; but that each is a tool to be used effectively at certain times. Thus he is discouraged from the reification of a particular set of concepts and freer to use all of them.

Barriers to Conversation

Man has the potential to converse. His basic curiosity about and openness to the world, at least in his early years, means that he can be open and receptive to those he encounters. His ability to symbolize provides him with the power to give form to his feelings and sensations and to throw these symbolic structures out before him, to be grasped by others. If he does not converse with those he meets, the probable reasons are not in the lack of potential but in the determinants that have shaped him.

Opportunities Must Be Available

Conversation requires a concentration and focusing of one's powers into a skillful pattern as do all practical and theoretical acts. Opportunities must be available to permit the individual to discover the elements of the skill and to make them more or less automatic in his behavioral repertoire. If he lives his years in an environment which does not permit discovery and testing of his ability to converse and if his conversational sallies are not sanctioned and reinforced, then the skill will not be developed. Knowledge of the art of conversation and of the skills which make it possible is not generally a part of today's lore.

Furthermore, attempts to obtain more knowledge of the art are few, although frequently someone decries the disappearance of conversation from the social scene and its replacement by communal gazing at television. The study of human encounters is more apt to encompass goal-oriented, problem-solving ventures, or conflict situations, than it is the study of affiliative contacts, as Allport pointed out. Lack of knowledge about conversation may prevent its development in society.

Besides lack of knowledge, there are other factors which influence individual deviation from accepted norms. The person who struggles with crippling fears or anxieties in his relationships with others will find conversation difficult or almost impossible, except with those who arouse no anxieties or with whom a therapeutic relationship has been established. Knowledge, increasing in scope and power, is available for identifying these determinants, controlling them, and reducing their influence.

Likewise, the person who is relatively incapable of symbolizing his experience, or has difficulty giving verbal form to his feelings or sensations, will be blocked from conversation. Again, some knowledge is available for rectifying these defects, and research in speech therapy and language development should increase the effectiveness of remedial techniques. These might be called idiosyncratic barriers to conversation —neurotic and physical distortions of normal competencies.

Barriers in Social Processes and Practices

Distinguishable from these idiosyncratic barriers are those operating within the society to limit conversation among most people. Barriers at various levels of conceptualization could be identified. For instance, by careful observation of child-rearing and other socialization processes, the pattern of behavioral acts which positively and negatively sanction conversation could be identified. At the next level, an attempt could be made to identify the values which are assumed to determine the behavioral acts. Prior even to the values, however, are the thought patterns or, preferably, the language or symbol systems which determine man's grasping and shaping of his world. The way that man explains the world —his world hypotheses, images, conceptions or myths—are the vehicles by which he shapes values and legitimizes actions. It is at this level, the level of man's basic thought and language patterns, that the major barriers to conversation probably exist.

It is easy for man to fall into the conventional language or symbolic patterns and to accept common sense definitions and explanations of man and his place in the world or to assume that the social scientist knows best and to use his images of man without hesitation or question. But giving symbolic or linguistic form to the world and his place in it is the prerogative of all men. He who excels in the invention of this form is an artist. He who determines the predictive possibilities of a given form is a scientist. He who knows and uses only one form to grasp and shape his world is a slave. But free is the man who recognizes that no system of ideas, symbols, images or myths completely encompasses man and his possibility in the world, and who acts accordingly. Saint Exupéry verbalizes this well:

> When some busybody comes forward, claiming to expound man with his logic and neat definitions, I liken him to a child who has settled down with spade and bucket at the foot of Atlas and prepares to shovel up the mountain and install it elsewhere. Man is what he is, not that which can be expressed. True the aim of all awareness is to express that which is, but expression is a slow, elusive task, and it is a mistake to assume that anything incapable of being stated in words does not exist. Stating is, by the same token, comprehending. But small indeed is the part of man which I have learned so far to comprehend. Yet that which on a certain day I come to comprehend existed none the less the day before; and foolish indeed were I to deem that all in man for which I cannot find the words is unworthy of consideration! [*]

The languages with the greatest acceptance today are those which are generated by or are imitations of science. Modern man, reveling in the power of scientific knowledge, considers the language of science as the superior language for all purposes, including the shaping and legitimizing of value. Thus the prevailing educational myths depend almost completely upon psychological and sociological interpretations of man and his place in society. In these, conversation is not valued *per se.* Man talks with other men for a purpose: for gaining information, solving problems, learning, or maybe for establishing good peer or social relationship. In schools teachers talk with students to help them learn; students talk with students to accomplish a learning task or because they have certain personal-social needs.

Limitations in Functional Language

In the broader economic life of the community, as man goes about his business, functional economic language shapes his behavior. Action is goal oriented. If public conveniences are ridden, the desired stop is the focus of attention, and man converses with man for information about how to get there, not simply because he happens to be sitting or standing next to another man; consequently the deathly silence in elevators unless friends are together or unless the operator sees his job as more than transporting people. If merchandise is purchased in a store, conversation is legitimate if it involves the business transaction; going beyond that the speaker faces negative sanctioning.

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[*] Antoine de Saint Exupéry. *The Wisdom of the Sands.* Translated by Stuart Gilbert. New York: Harcourt, Brace & World, Inc., 1950. p. 107.

Outside the sphere of the functional, if man converses in the home or with friends, he is engaging in a "worthy use of leisure time," a time left over from his purposeful sallies into the world of business, a time for recuperation and relaxation. The reverse interpretation, of course, is also possible. His purposeful activities in the functional world could well be interpreted as providing the necessities so time would be available for the new, more important purposes of life—association and conversation with friends and foes. Leisure time implies time left over, not time sought and valued as the most significant part of the day. Whether the shrinking work day and week, resulting from increased automation, will actually change the present-day conception of the importance of leisure-time activity remains to be seen. Yet if man works three or four days a week rather than five or six, new thought patterns legitimizing his use of the nonworking time will be necessary.

Modern man has become overly dependent on scientific modes of thought for shaping values and legitimizing actions. The clearest example of this is found in educational thought today. Future teachers are exposed to the psychological and developmental knowledge of the child and man to help develop knowledge of, attitudes toward, and skills for working with students. If the would-be teacher is exposed to the great religious, poetic and dramatic insights about man and his life, it is the result of an accidental encounter with an exceptional teacher rather than through the intent of an educational design. The overvaluing of scientific language has led to an undervaluing of religious and aesthetic language.

Valuing Religious and Aesthetic Language

Balancing this situation does not require undervaluing science or less critical scrutiny of the validity of religious and aesthetic insights, but it does mean assigning appropriate value to the function of all systems of language and symbols. Without question, scientific language is *the* language for generalization, prediction and control. But it is not the scientist who creates value—it is the artist:

> The work of the painter, the musician, the poet . . . makes us see the new qualities with which the world, in cooperation with the spirit of man, can clothe itself. For art is an enterprise in which the world and man are most genuinely cooperative, and in which the working of natural materials and powers and of human techniques and vision is most clearly creative of new qualities and powers.[86]

The artist must use the predictive and controlling knowledge of the scientist to realize his vision, for it is with this knowledge that he expands

[86] John Herman Randall. *The Role of Knowledge in Western Religion.* Boston, Massachusetts: Beacon Press, 1958. p. 128.

his power. In the sphere of man's relationship to man, the artist might be considered the prophet or the saint. "They teach us how to see what man's life in the world is, and what it might be. They teach us how to discern what human nature can work out of its natural conditions and materials. They reveal latent powers and possibilities not previously noticed."[35]

Again the artist must use the best predictive and controlling knowledge, the knowledge of the behavioral scientist, to come closer to the actualization of man's possibilities. The message of the behavioral scientist is the message of the man who has studied man and who "knows" him. The message of the poet, novelist, dramatist or other artist may be the message of a man who has met man and conversed with him and who indicates the worth of those meetings and conversations.

Several of the social thinkers who operate within an existential framework would center the basic problems of man's relationship with man in what is known as the "dichotomy of world into subject and object,"[36] a dichotomy which has been essential for the advance of science but which is also a barrier to conversation. For man to know the world as a scientist, the phenomena of the world must be perceived as objects before him with knowable and predictable qualities, yielding in a systematic fashion to his prodding, poking and questioning. Such inquiry makes abstraction possible and hence relationship to and control of the phenomena in terms of the abstractions.

Man encountered within the framework of the subject-object attitude is potentially a predictable, controllable man; a man to be studied and known. But as Tillich states, "Man has been lost in the enterprise."[37] The existentialist would admit to the possibility of a subject-subject attitude or what Buber would call the "I-Thou" relation in contrast to the "I-It"[38] relationship. Man meeting man within the I-Thou or subject-subject mode does not encounter him as an object to be known, potentially predictable and controllable. Rather he is another subject, to be met not in terms of abstractions and concepts, but to be met face-to-face and to be spoken to and listened to.

Today, the prevailing mode of thought would seem to be the subject-object mode, whereby man's basic attitude toward the world of nature and the world of people is that it is something to be known, to be used. The language which speaks of love, of living with, of communion, whether it be uttered by the poet or theologian, has its own tiny compartment in man's explanatory and shaping mythologies and does not seep readily into the main currents of man's habits and values.

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[35] *Ibid.*, p. 128-29.

[36] Ludwig Binswanger. "The Existential Analysis School of Thought." *Existence*. Rollo May, Ernest Angel and Henri F. Ellenberger, editors. New York: Basic Books, 1958. p. 193.

[37] Paul Tillich. *Systematic Theology*, Volume 1. Chicago, Illinois: University of Chicago Press, 1951. p. 99.

[38] Martin Buber. *I and Thou, op.cit.*

The Possibilities for Conversation

The major barrier to conversation may be the limitation of the conventional language used to shape man's values and legitimize his actions, not a lack of knowledge about conversation. The possibilities for more adequate conversation, then, are dependent on the acceptance of a greater variety of language patterns for thinking and talking about man's relationships with man. In the creative and scholarly fields, several trends presage the movement toward greater variability in symbolizing man's encounters with his fellow man, with more scrutiny and valuing of conversation.

Sources of New Insights

In the philosophical field two current interests have possibilities for reducing the barriers. The first are the interests of those who are generally categorized as existentialist. Many of them, or at least those who are somewhat optimistic, emphasize the primacy of man's relationship to man. Berdyaev, for example, emphasizes the need for communion among people, involving "participation, reciprocal participation, interpenetration,"[39] which is more than communication. Buber uses the word "dialogue"[40] to emphasize the quality of man's relationship with man. Jaspers is perhaps most explicit. He recognizes the importance of communication as the medium for developing selfhood, as would most social psychologists. But he goes beyond this to link truth and communication and to underline the importance of these in the community:

> Truth . . . cannot be separated from communication. Abstracted from communication, truth hardens into unreality. The movement of communication is at one and the same time the preservation of and the search for the truth.[41]

Going beyond this he states that "for the continuity of a living community the art of conversation must be developed."[42]

Thus, the existentialist, by emphasizing the significance of man's relationship to man and the primacy of the communion, conversation, dialogue, or participation with his fellow man, makes it possible for man to value more strongly these personal encounters and provides a language to legitimize conversational acts. The language of the existentialists differs significantly from the common language of the layman and from pedagogical language. To dismiss the language because it is different, abstruse, or because it does not meet the criteria of philosophical form is to reject it for insufficient reasons.

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[39] Nicolas Berdyaev. *Solitude and Society.* Translated by George Reavey. London: Geoffrey Bles, The Centenary Press, 1938. p. 141.

[40] Martin Buber. *Between Man and Man.* Translated by Ronald Gregory Smith. Boston, Massachusetts: Beacon Press, 1955.

[41] Karl Jaspers. *Reason and Existenz: Five Lectures.* Translated by William Earle. New York: Noonday Press, 1955. p. 79-80. Copyright 1955 by the Noonday Press. Reprinted by permission of Farrar, Straus & Cudahy, Inc.

[42] *Ibid.*, p. 82.

At the other extreme of the philosophical field are the contemporary philosophical analysts, beginning with Wittgenstein. Frequently belittling each other, the linguistic analysts and the existentialists nevertheless share a common concern: communication. Whereas the existentialist is concerned with the need for and possibility of communication in its many forms, the analyst is concerned with the use of language and assumes his task to be "to get a better understanding of the language we in fact use."[43] The focus in both is on that which transpires among individuals, one being excessively concerned with the form of the communication act, the other being overly concerned without adequate attention to the form it takes.

MacMurray, in attempting to bridge the gap, claims that the analysts "discard the problem in order to maintain the method" of traditional philosophy, whereas the "existentialists relinquish the method in wrestling with the problem."[44] Nevertheless, both are significant tools for making the educator aware of his limited, and limiting, thought patterns and language systems for shaping value and legitimizing action.

In the psychological field, comparable emphases are apparent, which might eventually reduce the barriers to conversation. On the one hand, the European phenomenological and existential tradition in psychology is finding its way into American psychological circles, thus providing more ways to view man and his relationship with other men. Schachtel's notion of "activity affect" and "allo-centric"[45] perception should shake the overdependency on need reduction and goal-oriented behavior, categories which do not necessarily legitimize conversation. Likewise the ideas developed and illustrated in May's *Existence*[46] should provide new categories for thinking about man's encounters with man and the possible values inherent in these encounters. On the other hand, the extensive studies of thinking and communication, which parallel the studies in philosophical analysis, should foster greater awareness of man's use of language to structure his universe, shape his values, and determine his interactions.

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[43] J. O. Urmson. *Philosophical Analysis*. Oxford: Clarendon Press, 1956. p. 27.

[44] John MacMurray. *The Self as Agent*. New York: Harper and Brothers, 1957. p. 27.

[45] Ernest Schachtel, *op.cit.*

[46] Rollo May, Ernest Angel and Henri F. Ellenberger, editors. *Existence*. New York: Basic Books, 1958.

Broadened Ways of Thinking About Relationships

Slowly the languages of other fields of endeavor may also work their way into common usage and become legitimate ways to talk about man's relationship with man. Whereas modern science and philosophy helped relax the grip of older theologies, current theologians are again being listened to. Such men as Tillich, Niebuhr, Barth, Maritain, and Buber, aware of and competent to deal with modern scientific and philosophical thought, command respect in intellectual circles as they give form to religious ideas. Eventually it might be possible to encourage students in education courses to think of the significance of their own religious beliefs as a basis for interacting with pupils, along with the ideas of Freud, Sullivan, and Rogers.

The compartmentalization of human thought into religious, philosophical, and scientific sections, without attempting consciously to compare and evaluate the differing language and symbol categories for the same phenomena or situations, cannot be justified. Such comparison and evaluation does not imply that one thought or language system must predominate over the others, for each has its own values. But the values can only be realized if their respective powers and limitations can be identified.

Although the evidence is less obvious today, eventually the humanistic interpretations of man, found in literature and the various arts, may also regain status as a justifiable means of shaping value and legitimizing action. The biographer, novelist, dramatist also provides models for grasping man's existence. Today the power, effectiveness and acceptance of science hinders the acceptance of the arts as an appropriate way of thinking about man and his relationship with man. Archibald Lampman states the case in a way that many other poets would willingly accept:

> Each mortal in his little span
> Hath only lived, if he have shown
> What greatness there can be in man
> Above the measured and the known.[a]

Freedom to converse requires an acceptance that conversation can be a meaningful and significant end in and of itself. As a mode of human encounter it needs no justification, for it is one way which man recognizes his solitude, his freedom, and his fraternity with others. In this day of egocentric and nationalistic behavior, conversation becomes more important, for it is an alternative to strife and conflict:

> War has always had an adversary who almost never comes forward as such, but does his work in the stillness. This adversary is speech-fulfilled speech,

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[a] Archibald Lampman. "The Clearer Self." *Unseen Wings: The Living Poetry of Man's Immortality*. Compiled by Stanton A. Coblentz. New York: Beechhurst Press, 1949.

the speech of genuine conversation in which men understand one another. It lies already in the nature of primitive war that it often begins there where speech has ceased, that is, where men are no longer able to discuss with one another the subjects under dispute or submit them to mediating talks but instead flee from speech with one another and in the speechlessness of killing one another seek a supposed decision, a judgment of God, so to speak. Soon, to be sure, war conquers speech too and enslaves it in the service of its battle-cries. But where speech, be it ever so shy, again moves from camp to camp, war is already called in question. Its grapeshot easily drowns out the word; but when the word has become entirely soundless and now, here and there, soundlessly bears into the hearts of men the intelligence that no human conflict can really be solved through killing, not even through mass killing, then it, the human word, has already begun to silence the grapeshot.[40]

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[40] Martin Buber. *Cross Currents, op. cit.*, p. 294.

Chapter 8

Education Is Human Relations

Robert E. Bills

IN the preceding chapter, Huebner has made a case for conversation as a basis of relating to others. Before looking at the implications of his statement for education, it seems desirable to describe what appears to be a similar point of view in the hope that it will lend emphasis and clarification to what he has written.

Why Converse?

Throughout history there has been a rise and fall in man's certainty about the nature of his world. At the time of Immanuel Kant, scholars generally held that there could be little hope of knowing the world which surrounds us. Clearly, man was irrational and the world unknowable. Since Kant we have passed through absolute idealism and into an era of scientism, until today in education we are faced with a revival of pure rationality. Man is rational and lives in a real and knowable world—a point of view which is being forsaken by the physical scientists as rapidly as it is being espoused by the public and by educators. The picture could be viewed as humorous were it not for the possibly disastrous consequences.

The Paradox of an Uncertain Science

Murphy phrased the question in succinct manner in the Fourth John Dewey Society Lecture:

> Now is this not a little bizarre? Have not the scientists told us with soul-searching earnestness that they encounter no absolute reality? As with the pot of gold at the end of the rainbow, they who have vainly pursued it have been the first to tell us that it is not there. Have not the mathematicians reminded

us that they only play an eternal game with things imagined according to rules which have been contrived to be followed for the intrinsic gratification of following such rules, and with no possibility that this eternal dance could enable us to grasp the solid substance of reality? Mathematics, they say, gives contact with reality and makes predictions possible only because of gross stuff out there which is unknowable, though it be processed somehow by assumptions leading back again to empirical, irrational sense-perceptions which belong in the same mute, unknowable world as the original observations.[1]

Thus, we witness physics turning to a world of statistical probability while we in education pursue assumptions about a real and a knowable world and bend more of our efforts to teach about it.

To illustrate at least a part of the problem, what is 9 and 5? We might say that they are two numbers, and by definition we would be correct. We might also say that they are 95 if placed in correct position and this would be correct also, even though the response involves unique assumptions about the expected answer. More often, though, if we ask this question of a person, he will reply, "14."

But 14 is not always the correct response. It is the correct response only under certain well defined conditions. These conditions include a decimal system of notation and an infinite series of numbers. And these conditions are not always those required by the problem. The sum of 9 and 5 may also be 2. This would be a correct answer if we were dealing with a finite system (limit 12) of decimal notation. Thus, nine hours after midnight plus five hours equals two hours after noon.

Although this illustration may seem to stretch the point somewhat, we should recall that today more computations are being made in binary and biquinary systems than in the infinite decimal system. Basically, most electronic, digital computers translate data from the decimal system to a binary system before making computations and retranslate from the binary to the decimal system before punching or printing out answers.

These thoughts lead us to say that it seems more useful in our thinking to believe that man imposes himself on his world and seeks to know it by means of the framework he has constructed. In contrast, though, education often takes as its task the communication of agreements which seem necessary to cause other people to see the world as we now see it.

It seems more exact to conclude that "something out there" gives rise to perceptions within a person. He then attempts to organize and to understand his perceptions. Thus, he begins to generalize, to form concepts and definitions, and to impose these on the data of his senses. His perception, as a result, becomes selective and he experiences what he has a "set" to experience. For the purpose of this chapter, the most important aspect of conversation is that it provides opportunity to reorganize perceptions of old experience while gaining new experience. The result is basic perceptual change and, through it, changed behavior.

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[1] Gardner Murphy. *Freeing Intelligence Through Teaching*. New York: Harper & Row, Publishers, Inc., 1961. p. 16.

Man's Aloneness

Each person has experience, and the raw data of a person's experience vary from that of any other person. Furthermore, the person has a "set" to interpret this experience according to his own form of perceptual organization. Therefore, it is obvious that each of us lives his life in his own individual world. How individual these worlds are is indicated by data reported by Gordon. When diagnosticians attempted to describe a client in counseling, the amount of overlap in their descriptions varied from about 10 percent to about 25 percent. Obviously, there was little agreement about what the client was like.[3]

In the same study, counselors attempted to describe a client as the client would describe himself. The first descriptions bore a negative relation to the client's own self picture, but as therapy continued, the relation betwen the two descriptions gradually increased until, at the end of therapy, these descriptions overlapped about 35 percent.[4] These figures tend to support the notion that we can increase our knowledge of how the other person perceives. But even in close and intense relationships, where one person is striving to communicate himself to another and where the other person is attempting to receive the communication, only a small part of the attempted or potential communication is received.

Much "everyday" evidence of the aloneness of man exists. For example, look at the differences in perceptions present in any discussion of important issues such as religion and politics. Although the discussants supposedly live in the same real world, it is obvious that how they perceive their worlds differs markedly from one to the other.

But man needs to make sense of his world. In it he must discover consistency, and if he cannot discover it, he must impose it through stereotypes and generalizations. And here he begins to encounter difficulty. Since generalizations are abstractions from data, they can never truly represent the data and thus they never exactly fit a situation. However, unless we abstract and generalize to arrive at some form of consistency, we are left in a buzzing confusion of "facts" and we would constantly receive sensory data devoid of any meaning. Constancy of perception is a necessity for existence. Our interpretations of our past experience provide this constancy and serve as a screen through which we receive new experience. Thus, the present tends to be interpreted as identical with past experience. Interpretation of present experience is more or less structure-bound by the past.

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[3] T. Gordon and others. "Studies in Client-Centered Psychotherapy." *Psychological Services Center Journal* 1: 81; 1951.

[4] *Ibid.*, p. 90.

So man is faced with the impossibility of making adequate generalizations while he is unable to function without them. Faced with this dilemma, he has but few alternatives, as pointed out by Huebner. Man may choose "to deny, ignore or escape from his own sense of aloneness or separateness, or that of his fellow man." Or, he may choose to become subservient to another person, thus, in effect, denying his own individuality. Instead of this, he may attempt to do the obverse: seek to overcome his separateness by possessing the other, which eventuates in a denial of the individuality of his own experience and that of the other person. But a fourth possibility exists. He may seek to share his experience with another person and, in turn, to share the experience of the other person. In this relationship he tentatively tests his perceptions and generalizations and alters them, coming all the while toward more satisfying generalizations which seem more accurately to fit his experience and the meaning of this experience for his organism.

Thus, it is in interaction with others that a person tests, explores, extends and expands his perceptions and the meanings of his existence. Left to his own devices, he would be unable to clarify the meanings of his experience, and it is doubtful that he could become a personality. As we shall see, this generalization implies much for the structure of educational experience.

Barriers to Conversation

Basic to these four ways of relating to other people are certain attitudes toward self and others. The person who seeks subservience is characterized, in this relationship at least and probably in many others, by a questioning attitude toward his own worth. This questioning attitude is coupled with an attitude of greater respect toward the person with whom he seeks the subservient relation than toward himself. For this person, attitudes of respect for the worth of other people are likely to be generalized to all members of the peer group and certainly to those in authority. The generalization of such attitudes is not always the case, though, and quite probably a person never belongs to any one of the four groups, characterized by Huebner, in all of his relations nor all of the time in any one relation.

The person who seeks to dominate appears to have the reverse of this constellation. At least on the surface, his attitudes toward his own worth seem to be more favorable than are his attitudes toward the worth of other members of his peer group and of other people whom he rates as his inferiors. That these may be only superficially held attitudes and that at a deeper level he may resemble closely the person first described above is shown by the rapid and significant changes he may undergo in a close relationship with another person where there is mutual respect —a relationship such as may exist in counseling.

Thus, either of these groups suffers a basic lack of self worth, although at a surface level this is not always apparent. Similarly, those people who seek to escape their aloneness by denying or ignoring their aloneness suffer various degrees of self rejection which may or may not be perceived readily by other people. Whether the person appears to be self rejecting or overly self accepting depends on the mechanisms he uses.

A mutuality of self respect must be present between two people for true conversation to exist in the sense with which Huebner uses the term. At least one person in the relationship must prize, that is he must respect and value, the worth of the other person. To listen in such a way that the listening affects both the listener and the expresser (or in a more limited sense, the "talker") requires that a person lay aside his own defenses and attempt to experience what the other person is experiencing. To do this requires a high degree of personal security. There is always the danger that the listener may be changed by the conversation. Thus, for true conversation, the listener must be secure enough to tolerate the differences he discovers between himself and the other person. He must also respect the worth of the other person and the individuality of his world. In such a situation, both parties are affected by the conversation and both discover new meanings for their experience.[4]

An interesting illustration is found in the work of Gorlow, Hoch and Telschow.[5] In their investigation of group-centered psychotherapy, they found that at the beginning of therapy, group members attempt to impose their perceptions on other members of the group. To do this often requires that they talk only about the things that they feel most secure in. Members often evaluate the behavior of other members with expressions such as, "You don't really feel that way" or "I think you are wrong there."

Listening and Understanding as Therapy

In the therapy group, the therapist assumes the role of an understanding listener. Most often his comments take such form as, "It seems to you that . . . ?" or "You feel that . . . . Is this the way it seems to you?" or "If I understand how you see it, it seems to you that . . . ?" Obviously, he is attempting to show respect for the worth of the other person, the ability of the other person to make sense of his own world, and a desire to understand without evaluation. As therapy progresses, a surprising thing happens. Members of the group begin to respond to each other in a manner similar to that of the therapist. They, too, seek to understand and to accept the other person's perception of his own meanings and experience.

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[4] Robert E. Bills. *About People and Teaching*. Lexington, Kentucky: Bureau of School Services, University of Kentucky, 1955.

[5] L. Gorlow, E. L. Hoch and E. F. Telschow. *The Nature of Nondirective Group Psychotherapy*. New York: Bureau of Publications, Teachers College, Columbia University, 1952.

In a different study, Barrett-Lennard[6] found that therapists who are seen by their clients as most helpful are characterized in a manner similar to that suggested by Gorlow, Hoch and Telschow. The most effective therapists are those who are congruent in the counseling hour; that is, a therapist is congruent when he is seen by his clients as holding the same attitudes and thoughts as those to which he gives expression. Successful therapists also are characterized by attitudes of unconditional and positive regard for the worth of the people they counsel. Successful therapists set fewer conditions on the worth of the people they counsel and are consistently more positive in their regard for the worth of their clients as people than are less successful therapists.

Although Rogers does not use the term, conversation, he does point out that attitudes of acceptance and regard for another person's perceptions are not common in our culture. Instead, we live in a culture characterized by evaluation. The communication of the other person is more often countered with an evaluation than accepted as meaningful and at least momentarily truthful for the other person. Rogers has said:

> Our first reaction to most of the statements which we hear from other people is an immediate evaluation, or judgment, rather than an understanding of it. When someone expresses some feeling or attitude or belief, our tendency is, almost immediately, to feel "That's right"; or "That's stupid"; "That's abnormal"; "That's unreasonable"; "That's incorrect"; "That's not nice." Very rarely do we permit ourselves to *understand* precisely what the meaning of his statement is to him. I believe this is because understanding is risky. If I let myself really understand another person, I might be changed by that understanding. And we all fear change. So as I say, it is not an easy thing to permit oneself to understand an individual, to enter thoroughly into his frame of reference. It is also a rare thing.[7]

Another ingredient of conversation has appeared in the research of Rogers and his co-workers at the Wisconsin Psychiatric Institute. It was reported[8] that with seriously disturbed patients, little progress occurred until the therapist expressed a willingness to be known as a person to the person whom he sought to help. In this research, it was found that uncommunicative patients are often helped to begin conversation by simple expressions of what the therapist is experiencing in the situation. These expressions may take the form of "I want very much to help you, but I can't when you won't talk to me" or even more productively, "I wonder if you know how upset and frustrated I am when you don't respond to my efforts to help." Many teachers report similar findings in their teaching.

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[6] G. T. Barrett-Lennard. "Dimensions of Perceived Therapist Response Related to Therapeutic Change." Chicago: University of Chicago, 1959. Unpublished doctoral dissertation.

[7] Carl R. Rogers. *On Becoming a Person.* Boston, Massachusetts: Houghton Mifflin Company, 1961. p. 18.

Similarly, recent research by the writer has shown that factors such as congruence, empathic understanding, positiveness of regard, and unconditionality of regard are equally important in the success of teachers. Those teachers who are rated as most successful by their principal and superintendent are also those who are seen by students as more empathic, more congruent, more positive in their regard, and less conditional in their regard. Successful teachers are empathically understanding of students; they tend to see, or to attempt to see, things as students see them. More successful teachers tend to be more honest in their expressions to students, behaving in a way which seems to be consistent with the way they are thinking or feeling at the time. And more successful teachers are more positive and less conditional in their regard, that is, they less often say or imply, "I will accept you as having worth if you are . . . ."

Thus, the greatest barriers to conversation are the reactions we experience from people who are important to us. These people include our parents, our peers, our teachers, and other people who have status in our eyes. When these people do not attempt to understand us or when they respond to us with evaluation, more and more we deny the personal meanings of our experience and express the acceptable, which is the safe and the secure. The more we fear to express our personal meanings, the further we get from our experience. In short, we become less and less open to our experience, and conversation becomes less likely or possible. This conclusion is tremendously important for education.

The Need for Openness to Experience

One result of ineffective or blocked conversation is to move a person further and further from his own experience, which is to say that he moves from openness to closedness to his experience. But experience is all that a person has to guide him in his behavior, since he cannot hope to understand the experience of another person to the degree necessary for this to become his sole guide.

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[8] Carl R. Rogers and others. "Symposium: Therapeutic and Research Progress in a Program of Psychotherapy with Hospitalized Schizophrenics." New York: Annual Convention of American Psychological Association, 1961. Unpublished.

Rogers has shown that it is possible to arrange all people along a personality continuum which extends from openness to closedness to experience.[9] Another way of saying this is that the continuum, which is also called a process continuum, extends from a point of *stasis*, wherein a person is closed to new as well as to past experience, to a condition of *process*, wherein a person has available to him the experience of his past and also is able to incorporate new experience and to revise old meanings with a minimum of difficulty. Rogers' conclusions result from studies in psychotherapy, but they seem equally applicable to people outside of therapy.

What Being Closed Means

A client coming for therapy represents a more stasis-like person, a person who to a lesser or greater degree is closed to his experience. Such a person shows an unwillingness to communicate self, and thus his communication is primarily about externals. Personal feelings and meanings are neither recognized nor owned by him. At this point in therapy, problems are neither recognized nor perceived as belonging to the self. There is little desire to change and there is much blockage of internal communication.

We know that in the early stages of therapy, the individual is characterized by fixity and remoteness in his experiencing. Most characteristic of this stage are such things as holding negative attitudes toward self and toward other people, dealing with the small and peripheral aspects of problems, concentrating on the external aspects of problems, placing the locus of responsibility for the problem outside of one's self, being concerned with the symptoms of a problem rather than with the problem itself, and stressing the past.

If therapy is successful and progresses, problems become more central. There is a gradual owning of experience. The client begins to feel that perhaps he has some worth and certainly that other people have worth. He begins to recognize and accept his own feelings and internal communication becomes much more possible. Gradually, he comes to see himself as somewhat responsible for the solution of his problems. He begins to deal more with the central aspects of problems and he becomes focused first in the present and later toward the future.

In successful therapy, these directions continue to develop, and the client eventually arrives at a point where new feelings are experienced with immediacy and with a richness of detail never before possible for him. Furthermore, his own conscious experiencing becomes a clear point of reference in acting and deciding. The client accepts ownership of himself and of his feelings and is proud to claim them. In this later stage, experiencing has lost almost completely its structure-bound aspects and has become process experiencing; that is, a situation is experienced and interpreted in its newness, not as the past. For the client at this stage, the self has become simply the subjective and reflexive awareness of experiencing. In fact, the client becomes his experience and the self becomes more frequently something confidently felt as *in* process.

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[9] Carl R. Rogers. "The Necessary and Sufficient Conditions of Therapeutic Personality Change." *Journal of Consulting Psychology* 21: 95-103; 1957; and also, "A Process Conception of Psychotherapy." *American Psychologist* 13: 142-49; 1958.

Thus, in successful therapy a client is seen to move toward being more and more open to his experience, toward having more of the data of his experience available to him without distortion or denial as he behaves.

How Opening Up to Experience Occurs

What are the implications for the goals of education of the process continuum? Most educators would agree that education exists to change human behavior. We want children who attend school to behave differently than they would had they not attended school. This poses a difficult philosophical problem. Does it mean that we should decide how we want children to behave and then put them through processes that will ensure these outcomes?

It has been demonstrated that a result of failure to accept another person's perceptions and behavior is to cause him to move further from his experience and closer to the stasis end of the process continuum. Attempts to manipulate human behavior toward goals selected by a person or persons other than the behaver have the same result. To accept another person's goal as suitable for our behavior means that we must deny our own experience and attempt to act as if the other person's experience is our own. Since we cannot experience as another person does, this leaves us without experience on which to base our behavior. Thus, it is not only difficult, and at times impossible, to change a person's behavior by force, manipulation, persuasion or other means, but to try to do so is usually harmful, for this causes him to deny more and more of his own experience and thus to have less experience available on which to base his behavior.

Therefore, if we desire to change human behavior by means of education, we must seek means other than force, either subtle or obvious. Suppose we approach the problem by asking, "What causes human behavior?" Perhaps we can arrive at a more satisfying answer.

The possible ways of conceptualizing human behavior are infinite. Any view of human behavior consists of abstractions from facts, which are then generalized and organized into conceptual patterns. Obviously, the facts of human behavior are themselves dependent upon the prior assumptions of the theorizer. Criteria, however, exist and may be applied to determine the usefulness of a theory. Generally speaking, these criteria include such factors as: ability to encompass a wide variety of facts, usefulness in predicting new facts, and amenability to test or to validation. Another factor—one not usually applied in evaluating theories—is the usefulness of the theory in the setting in which it is to be applied. For example most theories of learning deal with deficiency motivation, that is, an animal is deprived of food or water and subsequently his behavior is studied as a function of reward or reinforcement. Such theories involve obvious limitations when applied to public education.

One theoretical formulation which appears to satisfy the above criteria, including the criterion of usefulness, assumes that behavior is a function of perception. Accordingly, the educator who wishes to change behavior concerns himself with the structure of the individual's perceptual field and with the variables which appear to be relevant to this structure.

Perceptual theory holds that what a behaver does is consistent with the structure of his perceptual field at the instant of action;[10] that is, as a person sees so he behaves. Of equal importance in this theory is the related assumption about the drive or need of man. The basic drive of man is the need to maintain or to enhance self organization. In other words, behavior is directed toward maintaining the present status of the organism or toward enhancing that status. Habits represent systematic ways of automatizing routine procedures and serve to free the individual for more constructive work. Whenever there is a choice, man chooses to do that which offers him what he sees as the greatest possibility for enhancement of self. To state this even more strongly, man must do that which seems to him to be best for him at that instant.

The Key Is Available Experience

The perceptual field of the healthy person is kaleidoscopic. It is an ever-changing pattern, and, like the shifting sands of a desert, it is doubtful that the structure at any one instant will ever again be repeated in its entirety. Thus, what our perceptions and behavior are at any one instant will never be repeated exactly at any other time.

To change behavior through education, one must know the answer to such questions as these: what determines the structure of the perceptual field? And why is it that the behavior of some people tends toward rigid consistency?

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[10] Arthur W. Combs and Donald Snygg. *Individual Behavior*. Revised edition. New York: Harper and Brothers, 1959.

The key to the structure of the perceptual field is experience, and the key to intelligent behavior is a broad background of experience readily available to the behaver, without distortion or denial. Experience can be divided into a number of areas of belief. No attempt will be made here to give an exhaustive list of types of belief, but several will be mentioned briefly.

The first of these may be called fact, faith and superstition. These are our beliefs about what is reality, usually called knowledge or understanding. Perhaps it seems strange to include these three orders under one group, but the faith of one person is the superstition of another. In addition, faith and superstition function alike as fact for the believer. If we disagree too strongly with these statements, perhaps we should remind ourselves that many of yesterday's "facts" are no longer thought to be true. For example, it is necessary to qualify the statement that there are 92 elements by some phrase such as "outside the laboratory" or "found in natural states." And it is necessary to say that matter can neither be created nor destroyed *in a chemical process.* It is with the area of belief that public schools spend much of their energy and time.

In addition to our beliefs about reality, the structure of the perceptual field is dependent upon beliefs of how we should feel about things or people (attitudes), beliefs about what is important (values), beliefs about what the self is like (self concept), beliefs about what other people are like, and many others.

The individual interprets his experience, and these interpretations are beliefs. Although his beliefs may bear little resemblance to the beliefs of another person, they determine the structure of his perceptual field. Once the field is structured, the structure itself begins to determine future structure. No one type of belief has primacy in determining behavior, and so behavior cannot be altered, significantly, by changing only one type of belief. This raises serious questions about the almost exclusive emphasis placed on subject matter by some teachers and some schools. It is obvious that significant changes in behavior cannot be accomplished by subject matter alone.

The discussion of the relation of experience to the structure of the perceptual field and, through it, to behavior, must be qualified by the adjectives "available" and "undistorted." Thus, intelligent behavior is dependent on the breadth of experience which is available to a person, without distortion or denial, at the instant of his action.

A variety of factors can cause experience not to be available or not to be available without distortion or denial. Several of these factors have particular relevance for teaching.

An incomplete or damaged organism cannot receive experience to the degree necessary for intelligent behavior. An impaired central nervous system or one which is inadequately developed is incapable of receiving experience in the same manner as a complete or healthy organism. Physiological malfunctioning, resulting from disease, malnutrition, toxic poisons and the like, also operates to prevent the complete and undistorted reception of experience.

Some such cases can be given special treatment in school, others can be remedied by services ancillary to the schools. But our concern here is with the factors which are most amenable to control in teaching situations.

The primary factor in denial and distortion of experience is called threat. Attempts to free a person to change his perceptions usually cause him to deny and to distort his experience. If experience is presented in ways that have little meaning for the totality of a person's experience, he will find little personal meaning in it and consequently will ignore it. To force him to accept experience as meaningful when it is not is threatening and thus distorting.

When threatened, a person begins to defend and protect himself. He begins to distort his experience to make it what he wants it to be or thinks it should be. The greater the threat, the more the person is closed to the meaning his experience had for his organism at the time of the experience. The most important factor in determining a person's position on the process continuum is threat.

Huebner's discussion stresses the positive value of conversation. Conversation occurs in nonthreatening relationships and has the effect of opening a person to his experience. The most important feature of conversation is that it helps a person become or remain open to his experience, thereby insuring intelligent behavior. This has significance for education.

What Is Our Goal?

Given this information about behavior and behavior change, it is possible to state a goal for education. The task of education is to provide a person with opportunity for a breadth of experience and to do this in such a way that the experience will be personally meaningful and readily available when it is needed by him. What does this imply?

The Helping Relationship

The work of Gorlow, Hoch and Telschow already cited, as well as the work of many others, attests to the fact that certain definable conditions must exist in a relationship in order that the person or persons being helped will move toward process or greater openness to their experience. Barrett-Lennard's work indicates that a person is helped to move toward openness to his experience when the helper is congruent in the relationship, empathic in his understanding, positive and unconditional in his regard, and willing to share himself as a person with the person being helped.[11]

Much practical experience supports the validity of these concepts in a helping teacher-student relationship. For example, as a prelude to a study of the ideal teacher as conceptualized by successful and less successful college students, the writer asked about 400 college freshmen to describe the teacher who had the most significant effect on them. Some of these comments illustrate relationship factors in action.

One student described a teacher who lectured:

> The instructor took a personal interest in you as a person not only as a student. He spoke clearly and distinctly so the students could understand his lectures. He made his lectures interesting by adding a few comical remarks which added a little variety to the classwork.

Here is another example—a mathematics teacher who was certainly concerned for the learning of his subject. According to the student:

> The greatest asset he had was getting to know each of his students. He would treat each person different from another. There were a few people in the class who were smart and some who were dense. This teacher would find this out and then hold special classes. The people he considered to be having trouble were required to come. . . . This teacher also had a bull session quite often to "relieve tension."

A third student described a teacher who used more group discussion than lecture:

> Mr. Moore was a man seldom found in the teaching profession, but he also made the learning process an enjoyable pastime. When he lectured, which was seldom, he always spiced his lectures with a bit of humor, yet at the same time he never deviated from his original purpose or course. Basically he was intensely serious about the whole learning process. The mind of man is indeed a remarkable mechanism. But, in Mr. Moore's case, we find a mind of so rare a vintage as to be almost unbelievable. Indeed, its keenness and quickness was a thing of wonder to an ordinary individual like me. But he was far from all "brains," for he possessed a genuine understanding and warmth for his fellow man that is so tragically lacking in many instructors. *For unless you understand and love people, how can you ever teach them anything?* (Italics mine.)

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[11] See also Carl R. Rogers, footnote 9, first reference; and Robert E. Bills. "Believing and Behaving: Perception and Learning." *Learning More About Learning*. Washington, D.C.: Association for Supervision and Curriculum Development, 1959.

Another student gave this example:

> My most effective teacher was a teacher of history. He was a man of principles. It did not matter to him who you were, where you came from, what kind of clothes you wore, if you made the grade or not, he still gave you full credit. He was a personal friend to most of the students.

A final example:

> My most effective teacher . . . taught mainly by discussion and gave many examples that helped to tie in the subject. He knew how to keep class order and attention without being harsh or demanding. He kept a feeling of friendship among his students without letting it get out of hand. Each student was considered as an individual as much as possible and he was able to call each person in class by name.

These illustrations have several things in common. In each, the teacher offered a breadth and depth of experience in a manner meaningful to the student. But he did more than this. He also offered a relationship in which there was a high regard for the worth of the individual student. Each student was seen as having worth, and this showed through in what each of these teachers did. The characteristics of congruence, empathy, positiveness and unconditionality of regard, and willingness to be known obviously were present in each case.

How Teachers Vary in Openness

To what extent do teachers vary in their openness to experience? Does this influence their ability to be helping persons and to be helped?

Some answers are to be found in a series of recent studies. These studies were started by the writer's asking about 500 teachers in graduate programs to describe briefly the problems which gave them greatest concern as teachers. The rationale for this approach was simple. Our understanding of the process continuum came through studies of people in psychotherapy. In therapy, people talk about their problems. Would teachers show similar characteristics when asked to describe their problems?

The answer to the question was "Yes." We looked at the problems of the teachers from five points of view: Were the problems central or peripheral in their concerns? Did the problems reflect a negative or a positive point of view? Did the problems deal with the present and the past, or were they future oriented? Did the problems deal with other people only, or did they involve the self of the teacher? Where was the locus of responsibility for doing something about the problem—in the teacher or outside the teacher?

The range of the problems which were collected was considerable. On the positive-negative vector, problems ranged all the way from such statements as "My most pressing problem is teaching children who have neither the desire nor the ability to learn" to "My most pressing problem is learning newer and more effective ways of reaching the individual student." These same two problems can be used to illustrate the differences in the time orientation of the teachers, the time orientation of the former being the present, and of the latter, the future. The same two statements also illustrate the non-self or self concerns of teachers. In the former, the children will have to change if the problem is to be corrected, but in the latter the teacher would have to change. Too, the latter problem shows clearly that the teacher has accepted personal responsibility for solving his own problems. The acceptance of responsibility shown in the latter problem is quite in contrast to the teacher who said, "My most pressing problem is not being able to do anything new because of our principal and superintendent." An analysis of the 1500 problems collected in this study showed clearly that the problems of teachers can be arranged along the process continuum. But this finding raised the question of whether it makes any difference if teachers are more or less open to their experience as shown by the analysis of these problems.

We then selected 84 of the 1500 problems and asked a number of teachers to sort these so as to describe the problems of greatest concern to them. Based on the way the problems were sorted, we selected pairs of teachers in grades three through six. Each pair of teachers included one selected on the basis of problem description as being more open to his experience and one who was less open to his experience. We then tested the pupils of these teachers for attitudes toward self and others. The data showed that the more open the teacher, the more positive were the attitudes the boys and girls held toward themselves. Clearly, the process characteristics of the teachers were influencing the personal characteristics of the pupils.

The writer made a pilot study which was repeated by Emmerling[12] with a more precise and expanded design. Emmerling wanted to know if there was a relationship between the process characteristics of teachers and the way in which they were seen in relationships by boys and girls. In June, he tested 56 teachers on a college campus. In November and December, five and six months later, he selected students from 20 of these teachers and asked them to describe the congruence, empathy, and positiveness and unconditionality of regard of their teachers for them, using a modification of Barrett-Lennard's Relationship Inventory. He also asked the students to assess the locus of responsibility for decision-making within the classrooms of these teachers. His findings were simple. The more open the teacher was to his experience, the more he was perceived as congruent, emphatic, and positive and unconditional in his regard. Furthermore, the locus of decision-making for the more process teachers was centered in the class, including the teacher. The teacher saw himself and the students as important determiners of classroom policies (democratic). On the other hand, the locus of decision-making for the less process teachers was centered either in the teacher (autocratic) or in the students (laissez-faire). Again, it was clear that the person of the teacher markedly influenced the characteristics of the teaching situation and that the process characteristics of a teacher are stable characteristics.

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[12] F. Emmerling. "A Study of the Relationships Between Personality Characteristics of Classroom Teachers and Pupil Perceptions of These Teachers." Auburn, Alabama: Auburn University, 1961. Unpublished doctoral dissertation.

In a further study from this point of view, Engle [13] predicted that the more open a person, the more he could profit by and change during an educational experience. At the beginning of a workshop, Engle divided a group of teachers, principals, supervisors, librarians and superintendents into two equal groups according to the openness or closedness of each person as shown by the problems of concern to him. Engle found no significant difference in the attitudes toward self and others or the role descriptions of the ideal teacher given by either of the groups at the beginning of the workshop. Nor did he find any difference in factors such as age, sex, amount of educational experience, and amount of teaching experience.[14]

At the end of the six-weeks workshop experience, Engle again retested his subjects. He found that the 55 people in the more open group had changed significantly in their attitudes toward themselves and other people and in the descriptions they gave of the ideal teacher. For this group, attitudes toward self and others were more positive and role descriptions were more variable, representing a less stereotyped concept of the "ideal." On the other hand, he found no reason to believe that the less open group had changed at all in regard to these same variables. As far as these variables were concerned, this group had been unaffected by the workshop. Thus, his conclusion that the more open a person, the more he can profit by a workshop experience.

Relationships That Affect Openness

Recent studies in the field of educational administration help to put the problem in broader perspective. Cummins studied student and teacher attitudes toward self and others and the role concepts of teachers as a function of the qualities they perceived in their principals.[15] The more democratic the principal was perceived as being, the more positive were the students' and teachers' attitudes toward self and others, and the more facilitating and educing were the role descriptions given by the teachers. To a significant degree, the teachers and the students reflected their perceptions of the principals.

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[13] H. A. Engle. "A Study of Openness as a Factor in Change." Auburn, Alabama: Auburn University, 1961. Unpublished doctoral dissertation.

[14] Is the finding of no difference, as related to degree of formal education or amount of teaching experience, of consequence to institutions of higher learning or administrative and supervisory staffs of local schools?

Grobman[16] has summarized the University of Florida studies in educational leadership conducted as part of the Southern States Cooperative Program in Educational Administration and the Associated Programs in Educational Administration. This series of studies gave a wealth of information in regard to patterns of principals' behavior and their influences on pupils, teachers and parents. For the purpose of the present discussion, one of the more important conclusions was that the more democratic the method of operation of the principal, the more accepting of self and others were the teachers and pupils, the more favorable were the attitudes of parents toward the schools, the more democratic was the behavior of teachers, and the more the teachers interacted with the community. Grobman concluded that the most significant factors in the acceptance of a school by its community are the attitudes and behavior of its principal.

These studies have broad implications. If education is to be effective, can educators afford to ignore the qualities of openness and the relations necessary for the development of openness? The more open a person, the more he can change and the better resource he will be for other people in their change.

These studies have direct implications for higher education in the preparation of teachers. To help education achieve the goal described earlier, teacher preparation programs must enable their graduates—the new teachers—to be as open to their experience as possible. The open teacher can change more readily and also can provide the conditions which are necessary for opening students to their experience.

The implications, however, are not limited to teacher preparation programs. Teachers with qualities of openness can be closed to their experience by the nature of the administrative and supervisory relationships they encounter. Education has sought to establish democratic administrative and supervisory relationships on the grounds that they are consistent with the society in which we live and therefore "good." This, obviously, is a desirable goal. But democratic relationships are necessary in order that teachers may become or remain open to their experience and thus may effectively aid the education of boys and girls. Boys and girls treated in this way will have the creative intelligence needed to continue to modify our society and to continue its growth and development. If we are to free the intelligence of teachers and, through them, the intelligence of boys and girls, we must provide for the openness of teachers in the relationships of important "other" people with them.

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[15] Robert E. Cummins. "An Evaluative Study of Certain Teacher Perceptions Related to Professional Growth." Auburn, Alabama: Auburn University, 1957. Unpublished doctoral dissertation.

[16] Hulda Grobman. "The Public School Principal's Operational Behavior, Theory and Practice, and Related School and Community Interactions, Based on Data from the Investigations of the University of Florida CPEA Leadership Project." Gainesville, Florida: University of Florida, 1958. Unpublished doctoral dissertation.

The discussion also has implications for the ways in which we can seek to work with teachers to promote their openness. Since these principles seem to be the same regardless of whether we are attempting to help teachers or pupils, they will be discussed together.

New Approaches to Teaching

Obviously, the goal of education described in this chapter cannot be attained through teaching which emphasizes only a textbook approach to subject matter mastery. While few teachers would disagree with this, it seems necessary to say it in light of the criticism being leveled at education at the present time and in light of the reaction of many public educators to this criticism. Such criticism has led to "strengthened" curricular requirements, to requirements of mastery in a greater number of the subject matter areas in the secondary school, to a change in the junior high school toward aping the senior high school, and to a greater concentration on formal subject matter in the elementary school. But can we effectively educate boys and girls through these emphases alone? The evidence of this chapter seems to imply need for a greater concern than ever on how we teach. And many of the specific conclusions come as no surprise to experienced teachers.

Knowing Where to Start

Of primary concern is the question, "Where do we start with our teaching efforts?" The implied answer says that we must start where the child is, with the experience he presently has available, and with things that matter most to him. The same is true for a school improvement program. We may not like all the attitudes, methods, goals and problems of our teachers, but this is where we must start. And with teachers and students we may well begin by examining such questions as: Where are we? What is of concern to us? What should we be concerned with? How may we start?

In the secondary school, it is probably easier to start where the students are in courses which have been elected by the students. Frequently students elect a course such as chemistry because they would like to know more about this field of study.

One high school chemistry teacher in a small Alabama town reported that his approach to the subject was primarily through the question, "Would you like to go rapidly through the textbook during the next month or six weeks in order to get a better idea of what chemistry is about before you decide how you would like to approach its study?" According to the teacher, at the end of this period he helped the students summarize their understanding of chemistry and then raised the question, "What would you like to do now?" He did not let the matter rest at this point but instead made suggestions about how some of the students might like to further their learning. He gave such alternatives as these: "Perhaps by this time you have found something to which you would like to give more attention. If so, you may want to study this individually. On the other hand, some of you may want to continue to study as we have and to give more attention to the textbook." Students who did individual work were required to report back to the class periodically. One result of such reports was that other members of the class found that they would prefer to do this more "exciting" kind of study, and by the end of the year it was usual to find only five or six students still in the classroom studying the textbook.

This teacher also attempted to do what he could to start at a level attainable by his students. Unlike many secondary teachers, he did not assume that all of the students could read the textbook and profit by it. Instead, through reading tests and other devices he helped students to determine their level of reading ability. Some of the students then applied for admission to the reading improvement course offered by the English department of the school.

Other students were helped to determine if they needed special help in learning how to read chemistry. Part of the class instruction of the first six weeks was given over to the skills required in the reading of chemistry and science in general.

One of the most rewarding experiences of this teacher's career came when a student who planned to become a medical technician asked permission to use her time to study in the laboratory of the local hospital. We can probably appreciate the difficult question this posed for the teacher. ("After all, this is a chemistry class, and at the hospital you will be more concerned with biology.") After some serious self-examination, he granted permission, aided by the argument of the student, "I'm going to college next year and will enter medical technology. Shouldn't I have a better idea of what the field is like?"

During the year, the student became interested in the study of photomicrography and began to develop a set of slides concerned with stages of various blood diseases. Usually, she was aided by the laboratory technician and the library resources of the school, gaining what help she could from the teacher. But one set of slides could not be correctly identified. Through the help of a large Eastern university, it was discovered that she had pictured the developmental stages of a rare form of leukemia. As a consequence, the student was invited to give a paper at a convention of the American Medical Association and her slides are now used in a standard medical reference book.

Freeing Learners To Learn

An unusual case? No doubt. But how many more unusual cases could be discovered with such an approach? We limit children so much in what they can do by keeping them so busy with what they must do that we may never know the answer. But sometimes we get an insight. A ninth-grade teacher in a rural school in Alabama found that five of her students were completely bored with the subject matter of general science. After all, they had studied general science, much of it in a repetitious manner, during the past three years. When she explored with them what they might do, the teacher discovered that they wanted to study physics. All five students spent the remainder of the year in group study, aided primarily by their own resources.

Here is another illustration of how teaching may be approached in a manner consistent with what was said earlier. Mrs. Smith was a home economics teacher in an Alabama high school. At the time of the report, the students were beginning a clothing construction unit. It is not known who had the idea that the students should study clothing, but they probably expected to when they elected the course since such a unit was usually included. Mrs. Smith gave an exciting account of what she and the girls did:

> This project was really an outgrowth of a problem and a need in my teaching. As I started to plan a unit in clothing construction, I began to realize that I actually did not know where to begin with this group of girls. In the usual class we assume that each student knows nothing about the subject and start our planning from there. Let me state now that I am convinced this may be an injustice to many students and a cause of lack of interest. Nevertheless, this began to worry me since the group was made up of fourteen girls, six who had had home economics under me last year and eight who had never had any home ec training in school.
>
> I knew what the first six girls were *supposed* to have learned last year, but it was the other eight who became the problem in my mind. I knew it

would not be fair to assume they knew nothing about clothing construction since some told of things they had already done at home.

Mrs. Smith discussed the problem with the girls, and the girls decided that they needed to know more about their present state of understanding. As a result, "they decided on a test to help them decide what they needed to learn and not a test for a grade."

To continue, Mrs. Smith recounts that:

> It became very important for me to treat each of these students as individuals in order that they might not waste time starting below their level and others would not find themselves helplessly involved to the point of losing interest. It meant that I must work with all of the students individually at the same time. I found myself making up illustrations on seams, how to put in a zipper, putting on a band, cutting bias binding, working buttonholes, making darts, etc. These I could hand to most of the students and have them follow them with only a minimum of assistance from me.
>
> After a garment was finished, I had each girl go back and write a paragraph summarizing what she had learned. Each [illegible] listed the different learning experiences she had and also listed any phases of the construction she felt could have been improved, giving a way for the improvement to be achieved.

For example,

> Sally wanted to make a dress, and after she took the test she did not change her mind. I will admit that it was with reluctance that I agreed that she begin her clothing construction study with a striped dress. She needed very little help with either cutting or construction and was careful to check with me before going into each phase of work. Her dress was well made, stripes matched and very attractive. Her second selection was a beautiful printed cotton satin to be used for Easter. This was a more difficult pattern which she mastered easily. She won the school 4-H club dress review with this garment. In each of her three garments, she had different experiences, profiting by these as well as adding three lovely dresses to her wardrobe. She is thinking in terms of woolen skirts and possibly a suit for next year.

But what about required courses, in which there is a body of knowledge which *must* be covered? An excellent illustration of how this can be approached with similar methods can be found in Eckel's bulletin, *An Experiment in Teaching Educational Administration.*[17] Even in required courses much modification can be achieved. Why have all the children cover the same reading in English? Why not let children proceed at their own rate in arithmetic? Too, why have so many required courses? Several excellent studies suggest that no one pattern of courses provides the best preparation for college.

To be effective, education must start where the learner is and proceed in directions which are meaningful to him and which seem to him to hold at least some promise for his future. He must set the pace but the teacher must help him judge the effectiveness of his rate and direction.

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[17] H. Eckel. *An Experiment in Teaching Educational Administration*. Lexington, Kentucky: Bureau of School Services, University of Kentucky, 1955.

But the most important implication seems to be this. Children do not learn in an atmosphere of subject matter hermetically sealed off from the rest of life or from the other factors which structure their perceptions. These are continually interacting and must be accounted for in any significant learning. Nor can children learn values in one class, attitudes in another, and subject matter in a third. There is a continual interplay of these factors, and they are always present. In algebra, children learn attitudes and values as well as subject matter. And their present and developing attitudes will have much to do with how well they learn algebra, how far they will continue in algebra, and the later use they will make of algebra.

The relationship the teacher achieves with his students determines the degree of development the students will experience. To help children bring all of their experiences to bear on the solution of problems, to open them to experience both new and old, and to educate for intelligent behavior requires congruent and empathic teachers with a high level of unconditionally positive regard for the worth of their students. The openness of teachers and their effectiveness is a product of the openness of the people with whom they work.

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ACROSS CULTURES | FROM INSIDE OUT

NONE of the social sciences has contributed more new insights to education during the past 25 years than has cultural or social anthropology. In fact, the new ideas from this field have had tremendous impact on every aspect of our society, not just on the schools. All of us have tried to make use of the perspective that comes from comparing our own ways of believing and behaving with those of other cultures.

How widely the impact has changed our beliefs and behavior would be hard to say. Yet there can be no doubt that knowledge of other cultures has added another dimension to our thinking. We are much more aware of the role played by the culture in the shaping of personality. We are newly sensitive to the nature of our own institutions and ideals as possibly in part more unique than universal. We are much more accepting, at least intellectually, of the variety of value systems that can serve to satisfy human needs and to some extent realize human aspirations.

Have we still more to learn from a comparative study of cultures? To ask the question is to see that the answer is all too obvious. Never before has there been such need for the ability to think transnationally and transculturally. If we are to help the new nations take the giant step from the village hut, we must deepen our understanding of how cultures develop and how they change.

We must come to grips, too, with the problem of differentiating the unique from the universal. It is one thing to accept the fact that not all our own ways of living may be the best that can be devised; certainly, as a people we expect and seek better ways to live at home as well as abroad. But it would be another to decide that any way of living is as good for human beings as any other. The uses of cultural relativism, as Rhoda Métraux indicates, need to be set beside our new concern for universal or shared values.

And further, we must all know more than we now do about the dynamics of bringing our beliefs into harmony with our knowledge, of facilitating the process of change in values so that we can keep pace with and make good use of the explosion of knowledge around the world.

This need is the central thesis of Dr. Métraux's chapter. She sets the scene for her report of new insights by stressing the urgency of our finding better ways to interact in the new transcultural community. She recounts the history of man's emancipation from his own time and place. Most of her chapter is concerned with interpreting the role of values and the function of valuing and with assessing the complexities that are involved in moving from a variety of local cultures to a newly possible and necessary Great Community. In closing, she returns to the urgency of our need to understand how to help others as well as ourselves make needed changes. The note is hopeful; we may find here our major mission as Americans, for "we do know that openness to the unknown can be learned."

In her companion chapter, Hilda Taba first restates the Métraux position and then puts beside it a statement of the educational perspective that must also be in the picture. On these bases, she develops a series of "tasks" for education, topping the series with a call for a newly conscious attack on developing the kind of thinking that leads to greater openness and autonomy.

Chapter 9

Gaining Freedom of Value Choice

Rhoda Métraux

WE are living in a time of transition, a time of many questions and few sure answers. Traditionally, Americans have believed that the future is open. Aware that the present is shaped by the past, that the present situation is the outcome of complex circumstances, we have nevertheless believed that the autonomous individual can, by his choices, shape the future. Slowly, sometimes blunderingly and at great cost, we have extended our belief in autonomy to include members of both sexes, persons of most ages, and most groups in our national community. In our culture the problem is not so much one of gaining freedom of choice, except insofar as we have not yet succeeded in opening the door of freedom to all our citizens; it is rather the problem of providing an adequate foundation for the exercise of choice, the kind of choice which will keep the future open.[1]

Some freedom of value choice is open to the members of all cultures. For the system of values which a people has evolved through its history is neither a heterogeneous collection of discrete items nor a rigid mold by which every individual, however he differs from all others, is shaped. A value system is instead a network of interdependent beliefs, some explicit and some implicit, which gives meaning and coherence to a way of life and to the experience of those whose way it is. Neither the inheritance nor the life history of any two individuals is precisely the same; and though a culture defines the problems and the means by which those growing up in that culture may solve them, there is always a certain latitude. For a way of life, a culture, can survive only as long as the network of values has both the coherence and the flexibility to provide for most of the kinds of individuals who may be born within the group, who survive and are reared in accordance with its practices, as long as its premises are adequate in their forms of expression to make comprehensible not only the familiar but also, as the members of a society may encounter them, the new, the accidental, the strange.

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[1] Margaret Mead. "The Comparative Study of Cultures and the Purposive Cultivation of Democratic Values, 1941-1949." *Perspectives on a Troubled Decade: Science, Philosophy, and Religion, 1939-1949*. L. Bryson, L. Finkelstein and R. M. MacIver, editors. New York: Harper and Brothers, 1950. p. 87-108.

The problem of gaining greater freedom of value choice differs very greatly from one culture to another; in addition, there very probably are definable differences if one compares cultures which are stable, homogeneous, and very slowly changing and those which are undergoing change more rapidly and more inclusively or more unevenly than their value systems allow for. In American culture, we have included the idea of change articulately and conspicuously as one of the aspects of life around which important values cluster. Indeed, our valuation of change is one of the stabilizing factors in our culture; it has given coherence to our developing national life and to the situational alterations of individual life alike. But for contemporary Americans, the problems involved in gaining greater freedom of value choice go beyond the limits of our own culture and our specific value system.

Some of the Dimensions of Change

Today all the peoples of the world, not merely the people of any one nation, are confronted by a clear and present danger. In the past 15 years, the existence and the extent of this danger have become increasingly obvious to thoughtful men and women, however differently the problems which are engendered are formulated by the individual members of different cultures. For now, for the first time in the long history of mankind, it is possible for man himself to set in motion a process, purposefully or by some accident, which can irreparably damage and ultimately destroy the human species and, indeed, all living beings and perhaps the earth on which life depends.

A New Environment of Danger

Modern man, *Homo sapiens,* has a short history in terms of the evolution of life on this planet;[2] looking back over the longer history which includes man's precursors, it is possible to imagine natural catastrophes which might have interrupted or even precluded the development of our species. So also we know that in the much more recent past whole peoples have died off or have been killed off. Societies have vanished, leaving only the most meager traces of their existence. Cultures, too, have been dissipated. The survivors of some broken societies have scattered; the descendants of some live on, disinherited, with no knowledge that the rubble on which their villages are built contains clues to a once thriving, complex civilization.[3] We can trace back, through historical records and lingering tales, through the archaeological evidence of successive occupations of favored living sites, the triumphs and the catastrophes that have altered the fate of the world's peoples. But in no case, for long ages, has the fate of mankind been at stake.

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[2] Julian Huxley. "Evolution: Cultural and Biological." *Current Anthropology.* W. L. Thomas, editor. Chicago, Illinois: University of Chicago Press, 1955. p. 3-25. See also, on more general problems of evolution: G. G. Simpson. *The Meaning of Evolution.* New Haven, Connecticut: Yale University Press, 1949; and S. L. Washburn and F. C. Howell. "Human Evolution and Culture." *Evolution after Darwin.* Volume II: The Evolution of Man. Sol Tax, editor. Chicago, Illinois: University of Chicago Press, 1960. p. 33-56.

We know that modern man is altering the face of the earth. But in fact men have been altering the earth, interfering with the natural processes of evolution, purposefully, at least since the neolithic revolution—the time when human beings, by domesticating plants and animals, began radically to alter the relationships of living things and the effects of living things upon the nonliving surface of the earth.[4] But as long as the earth's human population was small[5] and the energy resources available to men were limited,[6] the long-term effects of man's use and transformation of the earth also were correspondingly limited. And as long as populations were separated from one another by the barriers of mountains and seas and deserts, mankind was safe no matter what might happen to any segment of the whole. But all this is now radically changed.

For the present we may be able to plan our way out of our most immediate danger—more exactly, perhaps, our most immediate anxieties and the almost inevitable impulse to act precipitously to alter the situation—by arguing, on the one hand, that the danger is far less great than it is being pictured by some of those (including some natural scientists) who are raising their voices in alarm and, on the other hand, that the effects of a nuclear catastrophe can be controlled and contained by protective measures we can take now if we decide to do so.[7] As long as the nations equipped with far-ranging, powerful nuclear armaments are few and similar arguments continue among others as well as among ourselves, the world may be granted a short breathing spell during which we can think further ahead.[8]

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[3] See, for example: Arthur Evans. *The Palace of Minos.* Four volumes. London: Macmillan Company, 1922-1937; Leonard Cottrell. *The Bull of Minos.* New York: Rinehart and Company, 1958; Seton Lloyd. *Twin Rivers.* Second edition. London: Oxford University Press, 1947, on Iraq; John A. Wilson. *The Culture of Ancient Egypt.* Chicago, Illinois: University of Chicago Press, 1951; C. L. Wooley. *Ur of the Chaldees.* New York: Charles Scribner's Sons, 1930; or closer to our own tradition: V. Gordon Childe. *Prehistoric Communities of the British Isles.* London: W. and R. Chambers, 1940; and R. G. Collingwood and J. N. L. Myers. *Roman Britain and the English Settlements,* Volume I of *Oxford History of England.* Oxford: Clarendon Press, 1937.

[4] V. Gordon Childe. *Man Makes Himself.* New York: New American Library, 1951. p. 59-86.

[5] Harold F. Dorn. "World Population Growth: An International Dilemma." *Science* 135: 283-90; 1962.

[6] Leslie A. White. *The Evolution of Culture.* New York: McGraw-Hill Book Company, 1959. p. 33-57.

But we have yet to realize, with its fullest implications, the dimensions of the change and the fact that this change is permanent. As far as man's own power over his future is concerned, there is no turning back while civilization exists nor is there any precedent for what is now necessary.

It is not, though it may seem to be, paradoxical that we have almost at the same time invented the means of creating, for the first time in human history, a worldwide community and also of making the first hesitant moves out from earth into space. The successful launching of an artificial earth satellite and, so soon afterward, the triumph of solitary men orbiting the earth, however briefly on these first journeys out of the earth's atmosphere, are, for one thing, the realization of a long dream. The profoundly altered conception of the universe which was verified by and, in a more important sense, followed on observations made possible by the invention of the telescope deeply affected men's imagination.[9] With startling suddenness, and in the face of theological difficulties, Europeans began to plot imaginary voyages to the moon, the planets, and the stars.[10] And poets, as Nicholson has pointed out, acquired a new cosmic perspective,[11] as when in *Paradise Lost* Milton pictures Satan who

> Looks down with wonder at the sudden view
> Of all the world at once. . . .[12]

Now, three centuries later, the launching of the Soviet and the American cosmonauts and astronauts has made possible in fact this sight which hitherto had been confined to the imagination—this view "of all the world at once."

Beyond the realization of this dream, the worldwide reporting of the space launchings has made us aware of the qualitatively new experiences which systems of satellites will eventually make possible, something which we have never fully represented through our imagination: the simultaneous sharing of experience by men the world over. The very complex broadcasting hookup for John Glenn's flight, which enabled people in many different parts of the globe to hear about a sight which only the one man out in space could see in its splendor—the sudden lighting up of the whole city of Perth in Australia, made us vividly aware that soon people who are hours and days (but no longer weeks and months) apart will simultaneously be able to see as well as hear events taking place in still other distant places.[13]

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[7] See, for example, the various papers on "Arms Control." *Daedalus* 85; Fall 1960; or the papers and discussion of the conference of the American Management Association. "Survival: Special Industrial Preparedness Conference." January 31-February 2, 1962. New York: Unpublished.

[8] Margaret Mead. "Are Shelters the Answer?" *New York Times Magazine*, November 26, 1961. p. 29, 124-26; and "Science and Human Survival." *Science* 134: 280-83; 1961.

[9] Marjorie Nicholson. *Science and Imagination*. Ithaca, New York: Cornell University Press, 1956.

[10] Marjorie Nicholson. *Voyages to the Moon*. New York: Macmillan Company, 1960.

[11] Marjorie Nicholson. *Science and Imagination*, *op. cit.*, p. 80-109.

[12] John Milton. *Paradise Lost* 3: 542-43.

Simultaneous Sharing of Experience

The possibility of this kind of participation in distant events also creates a situation without precedent. In the whole past century, we have witnessed a vast speeding up of communications between places in the far reaches of the globe. In recent years radio, tape recordings, and the motion picture camera have brought alive for us the voices and postures of men and women involved in events in distant places. But even now we have the feeling that "across the ocean" is far away, beyond our immediate reach.[14] We have not yet acquired the sense of the simultaneity of events, wherever they happen on earth, that is integral to community.

The virtual concurrence of these two massive achievements bears witness to the interdependence of scientific disciplines in the contemporary world and to the central place of science in shaping the lives of all men now living. Furthermore, if one reads the roster of names of those involved, directly and indirectly, in the necessary discoveries and their applications, one is brought unavoidably to a recognition of the transnational sharing of knowledge and cultural values. For beyond the evidence which these achievements (like so many others) present of technical competence, there is in the development of contemporary science unmistakable evidence of the deep, shared belief in and valuation of man's mastery of the natural world—a new transcultural value.

When the first news of the launching of Sputnik flashed across the world and people everywhere went out into the night, straining their eyes to watch for the rocket's swift passage across the starry sky, one of the first and most spontaneous responses of Americans—and doubtless, in some form, of countless others in many countries—was that this event marked "the beginning of a new age of man."[15] At that moment, in that phrase, we summed up our first insight into the magnitude of the changes through which we are living, an insight of which we appear to have lost some awareness in the press of events and the splintering of our first responsiveness. It seems possible that in some measure the heightening of our sense of danger and of being endangered derives from this first consciousness of ending and beginning, of discontinuity. Whether or not this is so, the acutely felt sense of Americans that we are involved in a crisis of survival and the attention we have given to the meaning of education for the coming generation indicate that, at a deeper level, what we are concerned with is our own values and goals; and, more broadly, the values which will make possible existence in the new age that we have brought into being but in which only our children will fully live.

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[13] Donald N. Michael. *Proposed Studies on the Implications of Peaceful Space Activities for Human Affairs.* Report of the Committee on Science and Astronautics. U.S. House of Representatives, Eighty-Seventh Congress, First Session. Washington, D.C.: Government Printing Office, 1961.

[14] Rhoda Métraux. "Far Away and Long Ago: Some American Attitudes Toward Time and Space." Forthcoming publication.

Mastery Over the Natural World

To an extraordinary extent, the history of Western cultures in the past four centuries or more (the length of time depending in part on one's interpretation of what the significant events were in the change from the Medieval to the Renaissance-modern cultures of Western Europe) has revolved around the problem of the valuation of man's mastery of the natural world and its implications for the relationships of men to one another and the goals toward which men strive.[16]

The early voyages of discovery and exploration, as mariners edged first down the coast of Africa and then with increasing boldness set sail out from the land onto the ocean,[17] both contributed to and tested new attitudes toward the natural world and other men. The building of seaworthy ships; the development of maneuverable sails; the patient accumulation of exact knowledge of coastlines, tides and currents and of prevailing winds and weather—all required an attentiveness to observation, an appreciation of the importance of accurately observed detail, a confidence in the cumulative nature of information, and an openness to the yet unknown which, in this combination certainly, were new in contemporary Western cultures but which were also developing in other phases of life. The question as to whether the newly encountered native peoples in Africa and, later, in the New World and the Pacific had souls,[18] *i.e.*, were human and were the children of God just as Europeans were, opened new vistas onto the relationships of men to one another which are still open before us.

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[15] Rhoda Métraux. "American Responses to Sputnik." Unpublished study, 1958.

[16] This subject has been too often and too fully discussed to require documentation here. However, A.L. Kroeber's brief and cogent essay, "Is Western Civilization Disintegrating or Reconstituting?" is suggestive in its viewpoint about both the past and the present. A. L. Kroeber. *The Nature of Culture*. Chicago, Illinois: University of Chicago Press, 1952. p. 402-08.

[17] Elaine Sanceau. *Henry the Navigator*. London: Hutchinson and Company, n.d.

In so brief an exposition, this one example must serve to illustrate the shift in the focus of attention which was taking place. It could as readily be illustrated by the struggles of the Reformation and the Counter Reformation; or the struggle of European artists, painters, poets and playwrights; or the struggles of astronomers and mathematicians. The common challenge was to come to grips with new materials, to work out new viewpoints and interpretations, to acquire appropriate attitudes toward experimentation, and to create an appropriate set of values. But we may turn to Francis Bacon for one contemporary phrasing of the problem:

> "It is not," he protests, "the pleasure of curiosity . . . nor the raising of the spirit, nor victory of wit, nor lucre of profession, nor ambition of honor or fame, nor enablement of business, that are the true ends of knowledge." Rather it is "a restitution and reinvesting of man to the sovereignty and power which he had in the first state of creation."[19]

In his statement of what "the true ends of knowledge" are *not*, Bacon included much that has gone into the acquisition of knowledge and its uses, but he also by his conclusion made central man's valuation of man.

From our knowledge of Renaissance Europe, it is clear that the men of no two European cultures responded in exactly parallel ways to the challenge that was presented; the valuation of the new kinds of relationships to the natural world and to other men varied among all the different but closely related cultures. Certainly, however, the challenge was defined; and for the most part the development of similar values was integral to all the versions of the culture characteristic of the Great rather than the Little Community, as Redfield has defined them.[20]

The new scientists who, however imperfectly, were guided by empiricism; the new humanists; the artists and dramatists and poets who looked to life for their models and experimented with new forms; the entrepreneurs and administrators of the new colonies; and the leaders who shaped new forms of religious expression—all the men in communication with one another, directly and indirectly, across Europe came to belong to (if they were not born to) the life of courts and cities and universities with its wider horizons and longer time perspectives. In seventeenth century rural England, amateurs, men and women, looked with fascination at the new miniature world revealed by the microscope,[21] but the thinking of the Little Community, in the midst of which they lived, was hardly touched by the new kinds of knowledge in which upper class individuals participated. It is important to recognize that this was so, for the dichotomy is still relevant today whether we are concerned specifically with American culture and our value system, with the broader tradition in which Euro-Americans share, or with the value systems of other peoples of the world.

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[18] For the Indians of the Americas, see the discussion of the *Sublimus Deus* (1538) of Pope Paul III. Francis Macnutt. *Bartholomew de las Casas: His Life, His Apostolate, and His Writings.* New York: G. P. Putnam's Sons, 1936.

[19] Loren G. Eiseley. "Francis Bacon as Educator." *Science* 133: 1201; 1961.

[20] Robert Redfield. *The Little Community: Viewpoints for the Study of a Human Whole.* Chicago, Illinois: University of Chicago Press, 1955.

Cultures as Self-Perpetuating

At the same time, of course, it is essential to realize that the capacity to achieve mastery of the natural world is an inherent characteristic of man.[22] All cultures of whatever degree of simplicity or complexity must build on this human capacity in rearing the individual children of each generation to become functioning adults and to carry on a way of life if the society and the culture of which the children are the heirs and the carriers are to survive. Superbly, passably well, or fumblingly, each individual must acquire the techniques that make survival in his culture possible, and every culture must be well enough organized and sufficiently flexible in allowing for individual differences and personality so that a wide range of individuals can survive and interact meaningfully.[23]

In one culture, the division of activities may be very simple. The basic techniques necessary for an adequate control of the environment, at the level reached in the culture, may be geared to the learning abilities of the very young, so that in later life emphasis on mastery consists, essentially, in refinements of the already known. In Eskimo culture,[24] for example, the basic division was between the skills learned by men and those learned by women, enforcing for sheer survival a lifelong partnership between a man and a woman (however unstable particular partnerships might be); and most of the basic skills on which survival depended were laid down well before adolescence.

[21] Marjorie Nicholson. *Science and Imagination, op. cit.*, 155-234.

[22] Erik H. Erikson. *Childhood and Society*. New York: W. W. Norton and Company, 1950; and Barbel Inhelder and Jean Piaget. *The Growth of Logical Thinking*. Translated by A. Parsons and Stanley Milgram. New York: Basic Books, 1958.

[23] J. M. Tanner and Barbel Inhelder, editors. *Discussions on Child Development*. Volume I. London: Tavistock Publications, 1956.

[24] Franz Boas. "The Central Eskimo." *Sixth Annual Report, 1884-1885*. Washington, D.C.: Bureau of American Ethnology, 1888. p. 399-669; and Jeannette Mirsky. "The Eskimo of Greenland." *Cooperation and Competition among Primitive Peoples*. Margaret Mead, editor. Revised edition. Boston, Massachusetts: Beacon Press, 1961. p. 51-86.

In another culture, with a much more complex organization of activities, the type of mastery required of the individual may be linked to birth. For example, in the traditional culture of the Muslim people of the Punjab in Pakistan, an agricultural village people,[25] each individual was by birth a member of a caste in which he was reared and married, and artisans were destined from birth to learn the cluster of activities associated with membership in the caste of "barbers," "potters," "cobblers," "bakers" and so on. In this peasant society, in contrast to Eskimo society, it was possible for an individual to survive in spite of a very low level of ability. However, the survival of the village and the society depended on a mastery of the environment which was shared but differential, insofar as the whole could function only with the participation of all the groups who contributed their recognized special skills.

In still another culture, the emphasis may be on individual choice and the matching up of occupation and interest, and the continuity of skill and knowledge may depend on the individualized renewal of interest in each generation.

In a preliterate culture, if no one chooses to learn some special skill it is lost forever, and a rapid shift in interests in a new generation may destroy the culture's stability. So in the peasant culture of Haiti,[26] learning passed from master to apprentice, boy or girl, but the choice of what to learn rested with the individual and new choices could be made throughout a lifetime.

In each of these cultures, the kinds of activity that were necessary for survival were related to particular and very different environments; in each, there was a circular relationship between the perception of the individual and the social arrangements for carrying on the necessary activities of life. In all of them, the continuity of knowledge and skill depended on face-to-face relationships of teacher and pupil; and in all, however else they differed, the central emphasis was the conservative one of reconstituting in each generation the core of skills available, the things already known. In Punjabi peasant culture, with its emphasis on the cooperative interdependence of specialized segments, new activities could be added to the cluster of those performed by any one of the segments. So men in the "barber" caste were also by tradition ceremonial cooks, confidential messengers, and matchmakers. But the actual cluster of activities carried out could vary from one man to another, from one generation to another.

Eskimo and Haitian culture, each in its separate way, placed a high value on individual autonomy. But the Eskimo were egalitarian[27] and the Haitian peasants were extremely hierarchical[28] in the structuring of interpersonal relationships. Both cultures gave considerable freedom to individual play with innovation. However, in none of these cultures were there recognized techniques for feeding individual innovations back into the mainstream of knowledge. In Eskimo and Haitian cultures, innovativeness was an aspect of style that entered into the definition of individuality without carrying with it any sense of progression. Indeed, in Haiti, where the Golden Age was placed in a mythical past, change was seen as continually disruptive, making it more difficult for people to live up to the model of what once was and ought now to be.

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[25] Zekiye Eglar. *A Punjabi Village in Pakistan*. New York: Columbia University Press, 1960.

[26] Rhoda Métraux. Field notes on Haiti; see also, Alfred Métraux. *Making a Living in the Marbial Valley*. Paris: UNESCO, 1951.

A Look at Our Own Culture

In American culture, we have stabilized change through our belief in progress, our confidence in the perfectibility of man, and our optimism that past promise is not vitiated by present error but can be fulfilled in the future. The idea of promise, incompletion in the present, is one way of giving Americans a sense of continuity and stability in change. For example, in 1960, the Commission on National Goals stated in the opening paragraph of its report:

> The paramount goal of the United States was set long ago. It is to guard the rights of the individual, to ensure his development, and to enlarge his opportunity. It is set forth in the Declaration of Independence. . . . The goals we here identify are within the framework of the original plan and are calculated to bring to fruition the dreams of the men who laid the foundation of the country.[29]

The sense of promise, the "dream," in which each move toward realization is a step but no step is final, since the future is continually open, makes it possible for a generation to change without our defining the change either as "rebellion" or as "revolution." Rather, it is perceived as movement along a course whose goal, *i.e.*, "to guard the rights of the individual," is known.[30] In our view of the sequence of change, it is assumed that knowledge will be greater in the future; thus, the situation will have changed. Also, the new generation, whose members have acquired the new information and who have adapted to the new situation, will be different from any previous generation. This shared expectation and the definition of the different-that-is-new as better but of the same kind provides one of our ways of keeping communication open between generations.[31]

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[27] Margaret Mead, editor. *Cooperation and Competition among Primitive Peoples.* Revised edition. Boston, Massachusetts: Beacon Press, 1961. p. 458-511, especially outline on p. 498.

[28] Rhoda Métraux. "Kith and Kin." New York: Department of Anthropology, Columbia University, 1951. Unpublished doctoral dissertation.

[29] *Goals for Americans: The Report of the President's Commission on National Goals.* New York: Prentice-Hall, Inc., 1960. p. 1.

[30] See also: Frank Tannenbaum. *A Philosophy of Labor.* New York: Alfred A. Knopf, 1951. p. 161.

Some Difficulties We Have

With this perspective on time and purposeful innovation, it is difficult for Americans to understand cultures, primitive or complex, in which the focus is conservative rather than innovative. But with our culturally built-in expectation of change, it is also difficult for us to look at the process of change with self-awareness of the discrepancies, the disintegration, and the reintegration which are involved in the actual incorporation of the new.

The process whereby the Western transcultural view of man's place in the universe has totally altered in the past 350 years, as part of the larger process of learning to use knowledge to engender knowledge, is a case in point. It is almost impossible for us now to reconstruct the complex intellectual and emotional stresses that hindered men in their attempts to interpret the evidence in the earlier stages, first, in reordering the place of the earth in the universe as one of the planets revolving around our sun, and, second, in recognizing the long history of the earth's development. Each step in this process meant, for Europeans, the disentanglement of fact and faith, the dissolution of images through which values were traditionally expressed.

In 1952, a Jesuit paleontologist and philosopher could say:[32]

> The idea of the existence of a man who can be regarded as the precursor, both chronologically and morphologically, of the builder of historical civilization —this idea, I submit, represents a surprisingly recent conquest of the modern mind. Today no one any longer questions it or even wonders at it. And yet only a little more than a century ago it would have been as impossible and as shocking for the serious scientist to speak (or even think!) in terms of "fossil man" as it still was, fifty years ago, for official science to suggest the mutability of the atom. . . . Today we smile as we think of the thrills and triumphs experienced by our great predecessors when in 1864 they first observed, on a fragment of mammoth tusk, the carved outline of the mammoth itself—definite testimony, over man's own signature, that man (at that time still believed to have been "created" in 4000 B.C.) had known and hunted the fabulous and (to the scientist of the period) fabulously ancient animal. . . .

But after overcoming the initial difficulty of visualizing man's high antiquity, the early prehistorians still had to surmount another mental hurdle, namely, a reluctance even to imagine a representative of the human race who would exhibit, osteologically, any prehuman features.

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[31] Rhoda Métraux. "Far Away and Long Ago: Some American Attitudes Toward Time and Space." Forthcoming publication.

[32] Pierre Teilhard de Chardin. "The Idea of Fossil Man." *Anthropology Today*. A. L. Kroeber, editor. Chicago, Illinois: University of Chicago Press, 1953. p. 93-94.

In recent years there has been an upsurge of interest in the history of the process by which scientists and others, in approaching the "mental hurdle," attempted to include the new within the framework of the familiar rather than make the necessary leap, as of course they eventually did.[33] These studies make sober as well as exciting reading for the insight they give us into the kinds of difficulty one must expect to encounter in problem solving when the data lead in directions that diverge from our expectations and involve the alteration of accepted goals or values.

Nevertheless, today we have no difficulty in teaching children about the true relation of the earth and the sun (although we still persist in first teaching children that "the sun rises in the east and sets in the west" without further explanation because it is "too hard" for them to understand the actuality, and then later we must correct what we have distorted by omission). Nor do teachers have difficulty in explaining to children the antiquity of the earth and the evolution of things in general over the immense time span, whether the explanation is given in the context of general science, earth science or geology, biology, or ancient history. Our difficulty comes, rather, when we attempt to teach children something about the origins of man, as a living organism whose biological evolution follows the same pattern as that of all other living organisms.

To be sure, the technical problems of mapping the evolution of our species are exceedingly complex and involve many controversial issues, and our understanding of the processes of evolution is as yet incomplete. But this is not the crucial difficulty for teaching, except insofar as it is a continual problem in education to foster an understanding of the openness of knowledge at any point in time. Nor is the difficulty essentially one of selection out of the mass of available data, even though with our increasing knowledge the emphasis we give through selection can aid or hinder the student in finding his way into the complexities of the subject. The main outlines are known. Nor is the difficulty clearly one of the practical consequences of placing man among other living organisms. Today most Americans take for granted certain consequences of our understanding of the place of man in the natural world. For example, without any difficulty we include man among the living beings which are benefited by comparative animal studies whether these are biochemical, physiological or psychological in their orientation. Indeed, young Americans regard medical research (one of the settings in which such studies are made) as one of the most desirable scientific careers, mainly because of the benefits such research promises "for mankind."[34]

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[33] On the general point, see: Bernard Barber. "Resistance by Scientists to Scientific Discovery." *Science* 134: 596-602; 1961. For the specific period, see, for example: Loren Eiseley. *Darwin's Century: Evolution and the Men Who Discovered It.* Garden City, New York: Doubleday and Company, 1958; C. C. Gillespie. *Genesis and Geology.* Cambridge, Massachusetts: Harvard University Press, 1951; and John C. Greene. *The Death of Adam: Evolution and Its Impact on Western Thought.* New York: New American Library, 1961.

Problems in Regard to Values

The problems which we find difficult to resolve in teaching and learning and which eighteenth and nineteenth century scientists trying to work out the basic discoveries found difficult to resolve for themselves—these are cultural problems that concern the way we regard values. For in our culture, the kinds of statement we make about the evolution of man enter into the problem of values in at least two different ways.

On the one hand, the definition we accept of man's place in the universe necessarily affects our definition of the source of values, the essential meaning of valuing.[35] On the other hand, our view of man's place in the universe is intricately bound up with a whole series of values in our culture—values which are expressed in our definition of the individual; our understanding of the meaning of "equality" and our interpretation of individual and group differences, including racial differences; our beliefs about the relations of man to other living beings; our attitudes toward growth and development; our attitudes toward the exceptional, including both the kinds of persons we regard as being in some way handicapped and those we regard as being in some way especially well-endowed; our attitudes toward personal conviction and responsibility; our conceptions of time and the meaning of change; our beliefs about the mutability of values in a changing world; our conceptions of space and our ideas about boundaries; and our attitudes toward conservation and innovation. I include here only some of the relevant subjects about which we are quite fully articulate.

Consequently, when we are engaged explicitly in teaching children about evolution, especially as it concerns the origins of man and the future of man, we are also implicitly making statements about valuing and values which are deeply felt and about which, in our culture, there have been and are areas of explicit and implicit conflict. In the past hundred years, the issue of man's place in the universe has itself stood for or symbolized other issues which at any time and in any place have only in part been made explicit. Nineteenth century social evolutionists seized on Darwin's theory of the survival of the fittest to show that ruthless, individualistic competition, which according to their economic and social theory in the long run improved the lot of man, was, in fact, "a law of nature."[36] Today, with our much greater factual knowledge of cultural process and of the complex relationship between biological and cultural processes, we can see this earlier form of justification as singularly naive. But the linking of biological evolution and certain forms of social theory (like the linking of biological evolution and certain forms of atheism) colors our feeling about as well as our understanding of this area of knowledge. This is true, particularly insofar as the specific social theories are now uncongenial to us and as our contemporary cultural emphasis on individualism is different.

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[34] Margaret Mead and Rhoda Métraux. "Image of the Scientist among High-School Students." *Science* 126: 384-90; 1957.

[35] Thomas H. Huxley and Julian S. Huxley. *Touchstone for Ethics*. New York: Harper and Brothers, 1947; G. G. Simpson. *The Meaning of Evolution*. New Haven, Connecticut: Yale University Press, 1949. p. 280-337; and C. H. Waddington. *The Ethical Animal*. New York: Atheneum Publishers, 1961.

Just as in the seventeenth century it was necessary for Christians to disassemble a configuration of images centering on the arrangement of the universe in order both to keep their religious faith intact and to further their knowledge of the universe, so in the twentieth century it is necessary to disassemble the configuration of images which in the nineteenth century formed around the idea of biological evolution. But this is not so easy to do. For much that we are dealing with is inexplicit and bound up with feeling rather than thought. Thus it is difficult for us as teachers and as students to discuss evolution in such a way that we take into account both the various kinds of data and our multiple interpretations and clarify just what we are reacting to at any given time.

In this discussion, I have deliberately omitted reference to the problem of man's psycho-social evolution, although the two—the biological and the psycho-social—are exceedingly relevant.[37] Instead, I have attempted to use the case of our struggle over a long period to come to grips with the problems of inorganic and organic evolution to illustrate certain points which are of immediate importance: our ability to include man within the natural world as part of the universe over which we are gaining mastery through knowledge; the revolutionary effects of new basic knowledge on cultural orientations; and the discrepancies in time between the first applications of new knowledge and its full incorporation in an existing culture with the changes in values and in the expression of values that may be involved. For the scientist, speaking to other members of the scientific community and to a large part of the educated community as a whole, can now say of organic evolution: "Today no one any longer questions it or even wonders about it." But in the wider context of our whole society, the transmission of information about evolution still presents problems.

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[36] See, for example, the discussion of Herbert Spencer's code of "enmity" and code of "amity." Arthur Keith. *Evolution and Ethics*. New York: G. P. Putnam's Sons, 1946. p. 114 ff. Keith himself was a late exponent of the idea that "the behavior of natural man is regulated by a double code of morals" (p. 114). See also T. H. Huxley's discussion of the "ethical process" and the "cosmic process" in his Romanes Lecture. Thomas H. Huxley and Julian S. Huxley, *op. cit.* Guided by a deeply humanitarian viewpoint, men like Spencer and Huxley proposed the idea that civilization somehow counterpoints evolution.

[37] A. I. Hallowell. "Culture, Personality, and Society." *Anthropology Today*. A. L. Kroeber, editor. Chicago, Illinois: University of Chicago Press, 1953. p. 597-620; Julian Huxley. "Evolution: Cultural and Biological," *op. cit.*

For example, a study made in the 1950's showed that the proportion of high school students who rejected the concept of evolution was larger at the end than at the beginning of the high school years.[38] A pilot study made in 1961 suggests that even well-trained high school students, who accept the relationship between biological and social evolution, may be highly Lamarckian in their viewpoint.[39] Equally important, perhaps, is the finding that attitudes of high school students toward the whole subject of evolution are related to the more inclusive image students have of science and scientists.[40]

If the kinds of change which are taking place in the world today are unique in the history of man, then the solutions to the problems which we are faced with as a result must also be new, must be come at in a new way and be adapted to the "new age" of which so many people had a glimmering view, as through a glass darkly, at the moment when the first man-made satellite was launched. If the dilemma in which we find ourselves, the danger which confronts us, is in fact related to our values, then it is a greater understanding of values and valuing which is most needed.

In the past we have been willing to believe that changes which have involved the development of new values must (or can only) take place slowly and gradually, as the members of a culture have moved toward a new kind of consensus of thought and feeling. In fact, in their studies of changing cultures, social scientists have been at pains to show that the incorporation of the new into an ongoing culture takes place at different rates but, on the whole, slowly over a period of more than one generation.[41]

Today we must ask: Is this inevitable? We must ask whether we have, through our knowledge of the processes of valuing, at least potentially acquired the means of changing the ways in which change takes place. We must ask whether, given the potentialities for culture building as well as for destruction which are now ours, we can make this new freedom available to the men and women of the coming generation rather than (as in the case of our "new" understanding of man's place in the universe) postponing realization until some indefinite future which may never come.

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[38] H. H. Remmers and D. H. Radler. *The American Teenager.* Indianapolis, Indiana: Bobbs-Merrill Publishing Company, 1957. p. 171.

[39] Rhoda Métraux. "Is Evolution Going on Today: A Pilot Study of High School Students' Attitudes." Unpublished study.

[40] Margaret Mead and Rhoda Métraux, *op. cit.*

[41] Felix Keesing. *Culture Change.* Stanford, California: Stanford University Press, 1953.

New Insights on Values and Valuing

But what, in fact, do we mean by "values" and "valuing"?

If one begins with the kind of definition with which contemporary social scientists would be in substantial agreement, it becomes evident that our thinking about values has profoundly altered one aspect of how our whole thinking about man has been reshaped by the systematic investigation of culture and society in the past century.[42] Today, in contrast to the past, it is clear that while the problem of valuing has panhuman reference, values can be understood and explicated only within a specific context, that is, within the setting of a particular culture. The conception of values as given, universal and absolute has not survived the systematic study of different cultures nor has the evolutionist conception of values as emergent and related to universally recurring stages of culture.[43] Such views as these were—and are—characteristic of the value systems of specific cultures at specific periods. Part of the task of the social scientist, as a student of man in culture, has been both to free our thinking from the ethnocentrism inherent in the conception that the value system of our own culture has universal applicability and to help us understand the place of valuing in all cultures.

Comparative Study of Values

In a specific culture, it may be believed that the values through which men find meaning in life were laid down supernaturally or by the ancestors or by a culture hero; that is, that values are given. In a specific culture, it may be believed that values, as they are understood, apply to all human beings universally; or on the contrary it may be believed that only those who share in a certain value system, as it is understood, are fully human. In both cases, a value system is regarded as definitive of the "human." In a specific culture, it may be believed that although knowledge and understanding fall short, values are immutable; that although, for example, it is difficult to define "the good, the true, and the beautiful" and so their definition is subject to discussion, values, fully understood, are absolute. But as soon as different cultures are compared, it becomes evident that neither value systems nor conceptions about the sources of valuing and the universal (or particular) applicability of values necessarily carry over from one culture to another or, for that matter, are continuously and unchangeably present over time in any one culture.[44]

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[42] There is no single comprehensive history of the development of anthropology as a science. Robert H. Lowie's *The History of Ethnological Theory* (New York: Farrar and Rinehart, 1937) covers many of the most important developments up to the 1930's. The development of modern anthropology is discussed in: A. L. Kroeber. *Anthropology*. Revised edition. New York: Harcourt, Brace and Company, 1948. The history of American anthropology is outlined and selections from writers of different periods are given in: Margaret Mead and Ruth Bunzel, editors. *Golden Age of American Anthropology*. New York: George Braziller, 1960.

[43] Robert H. Lowie, *op. cit.*

Historically, it has been one of the great strengths of the Euro-American cultures that there has been a sufficient sharing in values so that communication among their members has been meaningful at many levels. But this same partial sharing of values has made it difficult for us to recognize clearly the differences existing within the larger whole of Euro-American civilization. It has also made it difficult for us to conceive of alternative systems of value, and to overcome the habit of judging such alternative systems as we *can* recognize as "better" or "worse" or "more civilized" or "less civilized" and the members of simpler cultures as somehow less "human" or as "childlike."[45]

In the 1920's and 1930's, comparative studies of cultures and of values and value systems as an aspect of culture led to a clearer understanding, on the one hand, of the diversity of cultures and, on the other, of the internal integration of each culture. In the early 1930's, Benedict wrote in *Patterns of Culture:*

> The diversity of cultures can be endlessly documented. A field of human behavior may be ignored in some societies until it barely exists; it may even be in some cases unimagined. Or it may almost monopolize the whole organized behavior of the society, and the most alien situations be manipulated only in its terms. Traits having no intrinsic relation one with the other, and historically independent, merge and become inextricable, providing the occasion for behavior that has no counterpart in regions that do not make these identifications. It is a corollary of this that standards, no matter in what aspect of behavior, range in different cultures from the positive to the negative pole. . . .
>
> The significance of cultural behavior is not exhausted when we have clearly understood that it is local and manmade and hugely variable. It tends also to be

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[44] For a wider selection of examples, see: May Edel and Abraham Edel. *Anthropology and Ethics.* Springfield, Illinois: Charles C. Thomas, 1959.

[45] See, for example: Lucien Levy-Bruhl. *How Natives Think.* Translated by L. A. Clare. New York: Alfred A. Knopf, 1926. Shortly before his death, however, Levy-Bruhl repudiated his own earlier views about the gap between the mentalities of primitive and civilized man. Sigmund Freud's *Totem and Taboo* was written at a period when thinking of this kind was prevalent and his insights are phrased in the terminology of the period. Sigmund Freud. *Totem and Taboo.* Translated by A. A. Brill. New York: Moffat, Yard, 1918.

integrated. A culture, like an individual, is a more or less consistent pattern of thought and action. Within each culture there come into being characteristic purposes not necessarily shared by other types of society. . . .[46]

Some twenty years later, in *The Nature of Culture*, Kroeber commented:

> The principle of cultural relativism has long been standard anthropological doctrine. It holds that any cultural phenomenon must be understood and evaluated in terms of the culture of which it forms part. . . . Realization of relativism can be shocking to the tender-minded, through taking away the affective security which seeming absolutes render. Basically, of course, relativism is no more than desire for inquiry coupled with readiness to undergo unrestricted comparison.[47]

Cultural Relativism Out of Hand?

But the idea of cultural relativism, as it has been defined by anthropologists, has often been construed by others (particularly in regard to the relativity of cultural values) as having reference to some transcultural hierarchical arrangement of values as discrete items. For example, in the 1930's, it was (and today it still is) common to argue the relative superiority of "cooperation" and "competition" as valued types of social behavior; but the cultural contexts of forms of cooperation and competition are all too frequently overlooked.[48] So also the recognition that values are manmade rather than given and absolute has sometimes been reinterpreted to mean that values are, in the deepest sense, valueless. For example, it may be argued that since, in one culture, a high valuation is set on generosity and giving and the aim of cumulation of property is eventual, repeated sharing, and in another culture the emphasis is on thrift and industry for their own sake, as an expression of good character, while in still another culture cumulation is valued for the sake of the rivalrous competition it makes possible, therefore valuing, as such, is meaningless and values have no intrinsic reality.

Sometimes such reinterpretations of cultural relativism have led to apparently alternative definitions of the techniques through which human relations are regulated. For example, there is the idea that men's relations to one another, individually and in groups, are in fact dependent on "power" in some form. But such a definition is in itself culturally derived. Sometimes such reinterpretations have given rise to the assumption that a value system can be fragmented, that bits and pieces from one system can be introduced into another, affecting only one sphere of life or one period of life or one group within a society without affecting the whole. What is neglected here is the interdependence of values in the network of the value system and the integration of a culture as a system. For example, the introduction of clock time and standardized units of production as measures of capability into a culture in which the equality of persons has depended on ignoring, among other things, differences of tempo will affect not only attitudes toward work but also, very immediately, beliefs about the value of the individual.[49]

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[46] Ruth Benedict. *Patterns of Culture*. Boston: Houghton Mifflin Company, 1934. p. 45-46.

[47] A. L. Kroeber. *The Nature of Culture, op. cit.*, p. 6.

[48] Margaret Mead, editor. *Cooperation and Competition among Primitive Peoples*. Revised edition. Boston, Massachusetts: Beacon Press, 1961.

Or it has been argued that values can be universally defined but that different cultures have, so to speak, selected from among the universal possibilities one or another set of values. This is a view which is very characteristic of contemporary Americans; it affects both our view of our allies and our opponents in the cold war and our view of the peoples in old and new nations alike for whose future development we feel some sense of responsibility.[50] This view overlooks the changes taking place in our own system of values and in our definition of specific values over time, even within the lifetime of a single generation.

Somewhat less directly, the idea of cultural relativism has affected our thinking about the qualities inherent in man as an organism. Is warfare intrinsic in human nature, or is warfare an institution that has been highly valued for certain purposes but is now outmoded?[51] Can we by storing germ plasm reproduce in some other generation when they are needed the individual great men, the geniuses who have made important contributions to their culture at a particular moment in history—Churchill or Einstein or Picasso; or is the impact of the individual genius[52] dependent on the culturally determined situation, different at different times and under different circumstances?

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[49] Rhoda Métraux. "Montserrat, B. W. I.: Some Implications of Suspended Culture Change." *Transactions of the New York Academy of Sciences.* Ser. 2, 20: 205-11; December 1957.

[50] Margaret Mead. "Cultural Factors in Community-Education Programs." *Community Education: Principles and Practices from World-Wide Experience.* Fifty-Eighth Yearbook of the National Society for the Study of Education, Part I. Nelson B. Henry, editor. Chicago, Illinois: National Society for the Study of Education, 1959. p. 66-96.

[51] Arthur Keith. *Evolution and Ethics, op. cit.;* Bronislaw Malinowski. *Freedom and Civilization.* New York: Roy Publishers, 1944, especially Part V, p. 225-336; Margaret Mead. *And Keep Your Powder Dry.* New York: William Morrow and Company, 1943; Andrew P. Vayda. "Selected References on Warfare." New York: Department of Anthropology, Columbia University, 1961. Mimeographed; C. H. Waddington *et al. Science and Ethics.* London: Allen and Unwin, 1942; C. H. Waddington. *The Ethical Animal, op. cit.*

[52] Julian Huxley. "Evolution: Cultural and Biological." *Current Anthropology, op. cit.;* Margaret Mead. "Cultural Determinants of Behavior." *Behavior and Evolution.* Anne Roe and G. G. Simpson, editors. New Haven, Connecticut: Yale University Press, 1958. p. 480-503; H. J. Muller. "The Guidance of Human Evolution." *Evolution after Darwin,* Volume II: The Evolution of Man. Sol Tax, editor. Chicago, Illinois: University of Chicago Press, 1960. p. 423-62; and A. I. Hallowell. "Self, Society, and Culture in Phylogenetic Perspective." Same volume. p. 309-71.

One can see that such interpretations and questions have developed in part from a recognition of cultural (and individual) diversity and cultural relativism; they have arisen through new cross-currents of thought, new attempts to arrive at an integration of the sciences of man, with all that this involves in raising new questions for research and also in bringing together research findings. But one can also see attempts to shortcut the difficult process of learning and, in our present dangerous world situation, the even more difficult process of taking responsibility for the creation of new, viable modes of behavior and values.

The Central Question for Today

Essentially the problem turns on whether now, consciously, we can usefully apply to ourselves the methods of natural selection that characterize biological evolution with the hope of bringing into being a new kind of world—or whether we must, consciously, recognizing that cultures are manmade, take the responsibility of directing our social evolution, something that is much newer in our experience and in our way of thinking.[53]

What we can begin with, today, in assessing the task before us is the recognition that man, at whatever level of cultural development, is a valuing being, that all men, whatever the culture of which they are the carriers, organize their living and direct their activities toward goals with reference to a system of values. With our greater understanding of the processes of human growth and development, we can begin with the recognition that in any specific culture the values which its members share, in terms of which they act and judge one another's actions, are only in part explicit and within the awareness of those who teach and those who learn, those who live out their lives in the culture acting and judging their own and others' actions. To a very large extent, values are available to those whose lives are guided by them only indirectly, as they are embodied in clusters of images which may, or may not, find verbal expression.[54]

In one culture, in which the child is regarded as a miniature adult, the boy of three or ten or fifteen years may be addressed as "Little Man," and he may be rewarded and encouraged, at all ages, for behavior that is modeled directly on that of adult males. For example, he may be punished and discouraged when, at any age, he shows preferences for behavior which is not recognized as masculine. In our own culture, with its emphasis on the prerogatives of age, particularly during childhood, as well as sex, a young male is a "boy" (sometimes a "little" and sometimes a "big" boy) who then becomes a "teenager" (masculine). He is, at all stages, expected to model himself on his near contemporaries of his own sex, only gradually and rather slowly reaching out toward adult models. Some of what we expect of a "boy" can be taught to him directly, verbally, formally and informally, but much of what he is becoming is available to him only through the posture of other boys as well as through the different postures of girls and adult men and women responding to him; through the plots of stories, with their implications of failure and success; through the imagery of time, relating past and future to present states; and through the ways in which others around him deal with—and expect him to deal with—living and nonliving things.

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[53] Margaret Mead. "Cultural Determinants of Behavior." *Behavior and Evolution, op. cit.;* and C. H. Waddington. *The Ethical Animal, op. cit.*

[54] Geoffrey Gorer. "National Character: Theory and Practice." *The Study of Culture at a Distance.* Margaret Mead and Rhoda Métraux, editors. Chicago, Illinois: University of Chicago Press, 1953. p. 57-82; Margaret Mead. "Cultural Determinants of Behavior." *Behavior and Evolution, op. cit.,* Footnote 4, p. 488.

Finally, we can begin with the recognition that values are not discrete items but form a kind of network of relationships that gives coherence to the activities in which men engage and, in turn, are continually interwoven by the repeated occurrence of related, culturally coherent behaviors. Of this process, Kroeber writes:

> The essential characteristic things about a culture are its forms and patterns, the interrelations of these into an organization, and the way these parts, and the whole, work or function as a group of human beings live under them. A culture is a way of habitual acting, feeling, and thinking channeled by a society. . . . Every such system of channeling is accompanied by or contains a system of affects . . . some of which are usually powerful and persistent. Interconnected with these affects is a system of ideas and ideals, explicit and implicit. The combined affect-idea system of a culture at once reflects the habitual ways of action of members of the society, validates these ways to themselves, and to an extent controls and modifies the ways. It is in this affect-laden idea system that, in a certain sense, the core of a culture is usually considered to reside; in it lodge its values, norms, and standards—its ethos and its eidos.[33]

American Values Centered on Change

In American culture, *the new, progress, change, the future* are part of a time-space related cluster of images bound together by activities directed toward goals that may be defined as achievable but not yet achieved, at least by the individual, in contrast to goals which, as in traditional Chinese culture, may be repeatedly achieved and reaffirmed in the lifetime of the individual. The cluster is bound together also by the moral affirmation that behavior, so directed, is good and by various kinds of positive affect sometimes summarized in the word *optimism*, which in our culture (but not in all European cultures) implies a positive relation to reality. With this cluster of images as one basis of our expectations, we tend to assume and to act on the assumption that things, ideas, situations, countries, the next generation, and so forth are likely to be better for being new; that change in the long run implies the possibility of progress; that a change which involves something new is likely to bring about improvement in the future; that activity continuing into the future without change is (at best) *not* good; and that others, like ourselves, will have a welcoming attitude toward the new which permits change.

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[33] A. L. Kroeber. *The Nature of Culture, op. cit.*, p. 136-37.

But if, on the contrary, change is defined as deterioration or senescence (a definition we are quite valiantly trying to alter in our contemporary picture of old age[58]) or if the new is defined as a retreat to an earlier position (as, in the eyes of some Americans, federal aid to education implies a retreat from an independent position in which citizens, through their local school boards, can choose the kind of education they prefer for their children), then we reverse our stand. We do so also if a goal is redefined as ultimately not achievable or as achievable, perhaps, only in the very distant rather than in the foreseeable future (as some Americans regard the social integration of Americans of different "racial" stocks). And we reverse our position if change or the new seems to lead to a major redefinition of important goals or, conversely, if the redefinition of a goal involves a radically changed set of behaviors for its achievement (as when, in the view of some Americans, open-ended education, with its implications of a lifetime of learning, is seen to involve a radical modification of adulthood or maturity; or, conversely, a redefinition of maturity is seen to involve radical changes in the lifeways of those who are to attain a fully adult status). Wherever, in fact, the context of change is reset *against* our expectations, then the affects, the moral implications, the implications for behavior are quite different. But they are not, even then, unrelated to each other or, as we see it, to their opposites.

Thus the values which in American culture are expressed in sets of images relating to *the new*, *change*, and so forth are integrated by emotional tone, by moral implications, by expectations about and experiences of behavior, and, of course, by their place in the larger network of regularities which as a whole makes up the culture.

One argument against this view of values as culturally regular and characteristic of the inheritors and carriers of a culture, particularly the exceedingly complex cultures with which we are most familiar through our own lives and our own scholarship, is that it assumes the existence of a kind of uniformity among the members of a society. Such uniformity, it is said, may be found among the small groups who make up primitive societies but is highly uncharacteristic of complex cultures or, as some people prefer to call them, civilizations. This criticism, it would appear, is based at least in part on a reification of values. It is based on an assumption that because values can be and in certain cases are verbalized, they have an existence independent of behavior, including verbal behavior. An attempt was made some years ago to show that in practice such qualities as honesty and its opposite, deceit, which have been thought of as existing as entities, are multiple and differentially defined by situation.[57] Studies of this kind indicate the necessity for detailed, systematic observation and analysis if we are to obtain the data on which an understanding of the value system of a culture must be based, and they indicate the existence of a complex of positions, all relevant to any one cultural value. However, there is a point of more fundamental importance. When one is dealing with values and value systems, these are not concrete entities but abstractions. In a complex culture, which is complex because the whole consists of many interlocking versions, it is necessary to raise the level of abstraction in order to include the whole.[58]

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[58] See, for example: Natalie H. Cabot. *You Can't Count on Dying*. Boston, Massachusetts: Houghton Mifflin Company, 1961.

The argument that complex cultures cannot be characterized by any one interconnected value system is based also on an oversimplified view of cultural homogeneity and integration. It is true that, especially in the 1930's, when anthropologists were attempting to elucidate the concepts of cultural integration and cultural style (as historians have attempted to elucidate the concept of style in relation to a period [59]), they tended to present cultural materials selectively in such a way as to highlight the theoretical points that at the time were unfamiliar. A return to the descriptive data of monographs (for example, Malinowski's monographs on the Trobriands, on which he based his own later discussions of value in institutions [60]) demonstrates that, of course, the culture even of a primitive people is more complex, less simply organized, and less sharply definable, than it appeared in these first expositions of a theory. It is also true that by and large anthropologists have seldom attempted to combine synchronic and diachronic exposition.[61] Rather, by convention, they have tended either to hold time steady in order to present a rounded description of a culture or have assumed the existence of the whole as a way of dealing with process and change through time.

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[57] H. Hartshorne and M. A. May. *Studies in Deceit*. New York: Macmillan Company, 1928. For a review of various studies, see: Vernon Jones. "Character Development in Children—an Objective Approach." *Manual of Child Psychology*. L. Carmichael, editor. New York: John Wiley and Sons, 1946. p. 707-51.

[58] Margaret Mead. "Educative Effects of Social Environment as Disclosed by Studies of Primitive Societies." *Environment and Education*. Supplementary Education Monographs, No. 54. Human Development Series, Volume I. Chicago, Illinois: University of Chicago Press, 1942. p. 48-61.

[59] See, for example: R. G. Collingwood. *The Idea of History*. Oxford: Clarendon Press, 1946.

[60] Bronislaw Malinowski. *Argonauts of the Western Pacific*. London: Routledge and Sons, 1932; and Bronislaw Malinowski. *Coral Gardens and Their Magic*. Two volumes. New York: American Book Company, 1935; in comparison with: Bronislaw Malinowski. *A Scientific Theory of Culture and Other Essays*. Chapel Hill, North Carolina: University of North Carolina Press, 1944. p. 3-144. Malinowski's main work on his institutional analysis was done in the 1930's. This example was selected because the theoretical presentation is by the author of the original monograph.

One of the relatively few attempts to combine the two modes of presentation is found in Mead's restudy of the Manus of New Guinea, a people who were in the rare situation of attempting consciously to rebuild the whole of their culture by their own efforts.[62] We have not yet, it seems to me, developed very satisfactory methods for such a combined analysis and presentation for complex, contemporary cultures. It is possible that, at present, novelists are making some of the most interesting and productive experiments in the presentation of cultural change through time, especially in their attempts to handle change thematically. Here one thinks of such writers as Thomas Mann, Jules Romain, C. H. Snow, and J. R. Tolkein.[63] So it is particularly difficult for someone who does not command both the data and the methods of observation and analysis to see the complexity which is implicit in an analysis of cultural regularities and an underlying value system such as that made of Japanese culture by Benedict[64] or of English culture by Gorer.[65]

There is the further difficulty that today, the world over, peoples are living through a period of transition characterized by extremely rapid change, an extremely rapid rate of cultural diffusion, and very uneven awareness within and across cultures that the changes which are occurring involve much more than alterations of content. Therefore, even as we look to our own or some other contemporary culture to test the theory of cultural regularity and integration through the integration of a value system, we find that we must develop new methods of thinking about cultural discontinuity and disintegration. Some systems are holding together in spite of massive change, others are coming rapidly into being through change, and still others are attempting to force the pace of change by means of conscious, internal, revolutionary techniques. All of them are at the same time attempting to stabilize their relations to one another.[66] In this world situation, the whole conception of an integrated, homogeneous culture can give us some measure of the past we are moving away from and of the future toward which we may move, but certainly at some different level of integration. It is insufficient as a picture of our present state.

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[61] Margaret Mead. "Character Formation and Diachronic Theory." *Social Structure: Studies Presented to A. R. Radcliffe-Brown.* Meyer Fortes, editor. Oxford: Clarendon Press, 1949. p. 18-34; Gregory Bateson. *Naven.* Second edition. Stanford, California: Stanford University Press, 1958; especially Chapters I and III. p. 1-5, 23-34.

[62] Margaret Mead. *New Lives for Old: Cultural Transformation—Manus, 1928-1953.* New York: William Morrow and Company, 1956.

[63] I should include here not only those novelists who have written about their contemporary society (Mann, Romain, Snow) in contemporary terms but also those who have dealt with contemporary themes symbolically, as Tolkein has in *The Lord of the Rings* (Three volumes. London: Allen and Unwin, 1954-1955) or as certain writers of science fiction have done.

[64] Ruth Benedict. *The Chrysanthemum and the Sword: Patterns of Japanese Culture.* Boston, Massachusetts: Houghton Mifflin Company, 1946.

[65] Geoffrey Gorer. *Exploring English Character.* London: Cresset Press, 1955.

Problem of Cultural Universals

With our developing ability to define and demonstrate cultural relativism and especially with our more accurately based knowledge of the ways in which the growing child is enculturated and, in terms of his sex and ability and social place and specific experiences of learning, becomes a representative of his culture [67] or by which the adult immigrant makes the transposition from his native to his adopted culture, it has become possible to formulate anew the problem of cultural universals.[68] So also it has become possible—and necessary—to raise the question of whether we must not reconsider the problem of universally shared values.[69]

In the 1930's, already responding to formulations of cultural relativism, Frank had suggested that it should be possible to organize the data around the common problems which all peoples at all times have had to solve in some way, such as the problem of man's relation to the universe.[70] In the 1940's, Erikson began to formulate, in terms of the individual, the tasks for which all cultures had to make some provision.[71] As another step in the same general direction, in the 1950's a group of social scientists in the Harvard University Laboratory of Social Relations carried out a complexly interrelated study of five cultures located in one part of the Southwestern United States in an attempt to work out a unified set of criteria for the comparative analysis of values. Concurrently the research was directed to work on the problem of intracultural variations in values, or value orientations, the term preferred by these research workers.[72] Discussing this research, Florence Kluckhohn outlined the assumptions of this comparative study, as follows:

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[66] Margaret Mead. "World Culture." *The World Community*. Quincy Wright, editor. Chicago, Illinois: University of Chicago Press, 1948. p. 47-56. In the same volume, see: "Discussion of World Culture." p. 57-94; "Appraisal" by Ruth Benedict. p. 303-305.

[67] A. I. Hallowell. "Culture, Personality, and Society," *op. cit.;* Margaret Mead and Martha Wolfenstein, editors. *Childhood in Contemporary Cultures*. Chicago, Illinois: University of Chicago Press, 1954, especially Part I, p. 3-33.

[68] Clyde Kluckhohn. "Universal Categories of Culture." *Anthropology Today*. A. L. Kroeber, editor. Chicago, Illinois: University of Chicago Press, 1953. p. 507-23; Geoffrey Gorer. "Discussion of 'The Comparative Study of Cultures and the Purposive Cultivation of Democratic Values' by Margaret Mead." *Science, Philosophy, and Religion*. Second Symposium. L. Bryson and L. Finkelstein, editors. New York: Conference on Science, Philosophy, and Religion, 1942. p. 78-81; Karl W. Deutsch. "Discussion of 'The Comparative Study of Cultures and the Purposive Cultivation of Democratic Values, 1941-49,' by Margaret Mead." *Perspectives on a Troubled Decade: Science, Philosophy, and Religion, op. cit.*, p. 89-90.

[69] Eliot D. Chapple. "Anthropology and Ethics." *Perspectives on a Troubled Decade: Science, Philosophy, and Religion, 1939-1949*. L. Bryson, L. Finkelstein and R. M. MacIver, editors. New York: Harper and Brothers, 1950. p. 79-85; Clyde Kluckhohn. "Culture and Behavior." *Handbook of Social Psychology*. Gardner Lindzey, editor. Cambridge, Massachusetts: Addison-Wesley, 1954. Volume II. p. 921-76.

> First, it is assumed that there is a limited number of common human problems for which all peoples at all times must find some solution. This is the universal aspect of value orientations. . . . The second assumption is that while there is variability in solutions of all the problems, it is neither limitless nor random but is definitely variable within a range of possible solutions. The third assumption . . . is that all alternatives to all solutions are present in all societies at all times but are differently preferred.[73]

The problems singled out "as the crucial ones common to all human groups" built on the kind of insights which had been developed by Frank. They included, for example, "the character of innate human nature," "the relation of man to nature (and supernature)," and "the temporal focus of human life." [74] It was predicted that for each culture it would be possible to delineate a set of interconnected solutions, with required and permitted variations that, in effect, give insight into the value system of the specific culture and provide a unified basis for the comparison of different cultures and, over time, versions of any one culture. In a primarily speculative approach, the Edels have attempted, in *Anthropology and Ethics*, to demonstrate how one might use "models of . . . whole morality configurations" [75] to organize comparative materials; their formulations are a firm reminder of the dangers of oversimplification at any stage. So also their collaboration suggests the fruitfulness of combining the methods and insights of the social sciences and the humanities.

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[70] Lawrence K. Frank. *Society as the Patient*. New Brunswick, New Jersey: Rutgers University Press, 1948. p. 286-97.

[71] Erik Erikson. *Childhood and Society*. New York: W. W. Norton and Company, 1950. See also his most recent statement: "Identity and the Life Cycle: Selected Papers." *Psychological Issues* 1: 18-171; New York: International Universities Press, 1959.

[72] Florence R. Kluckhohn and Fred L. Strodtbeck. *Variations in Value Orientation*. Evanston, Illinois: Row, Peterson and Company, 1961. See also the bibliography.

[73] *Ibid.*, p. 10.

[74] *Ibid.*, p. 11 ff.

[75] May Edel and Abraham Edel, *op. cit.*, p. 195.

The success of these and other studies, with somewhat different orientations, some on a larger and others on a smaller scale, indicates that it is possible to establish empirical criteria for universal comparisons and that we can now take the next step beyond the firm intracultural delineation of value systems within the framework of cultural relativism. The results of such studies suggest the direction our thinking must take in considering universal aspects of valuing, to include not only the existence of problems "common to all human groups" but also contexts in the natural world and a human capacity for valuing, however we may later come to define this; and in considering the possibility of eventually working out universal criteria.

In all this, however, we are only at the beginning. The accomplishment of the task will require the full participation of all those who are committed to the furtherance of human knowledge and understanding in the human and in the natural sciences and in the humanities. Today no individual, however well trained in any combination of disciplines, and no single discipline or even set of disciplines, however contemporaneous its special preoccupations may be, can make all the contributions that will be necessary.[76]

It is perhaps fortunate that we have arrived at just this stage in our understanding and in our readiness to undertake new work leading to new kinds of insight at this time. In the first place, the crisis which we must meet—which the peoples of all the world's cultures must meet—can give the necessary focus to our commitment to enlarge our knowledge of values and valuing, as it can strengthen our resolve to put into applicable form what we know and will learn. In the second place, the state of communication among the world's societies, old and new, oriented to past or present or future in their attitudes toward change, is good enough so that we can hope to break through the barriers of ethnocentrism. In the mid-nineteenth century, it was inevitable that the viewpoints developing out of the Euro-American cultural tradition should be given a kind of preeminence in the conceptualization of the new. In the mid-twentieth century, the contributions of those who have been reared in any one of the world's cultural traditions can enrich the understanding of all the others, and a sudden leap forward may come from any of the peoples of the world.

In 1958, in an article entitled "Modern Science and the African: The Western Impact," Ammishadai Adu, an officer of the National Research Council of Ghana, wrote:

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[76] This is brought into focus when one considers the range of disciplines and skills which are represented in, for example, the several symposia cited in this paper. For a discussion of the skills drawn on in only one set of studies, see: Margaret Mead. "Introduction." *The Study of Culture at a Distance*. Margaret Mead and Rhoda Métraux, editors. Chicago, Illinois: University of Chicago Press, 1953. p. 10-40.

> Whatever his level of civilization, man has not yet learned to live in peace with his neighbor. The unrest in Africa today stems from a different cause. It is at bottom related to contending patterns of culture. . . .
>
> Fortunately, cultural trends in Africa today have not yet crystallized. There is a fluid situation susceptible of conscious modeling. We can still be masters of our cultural destiny if we wish it and work for it. . . .
>
> Africans, together with the rest of mankind, are striving to realize the ideals of civilized existence. These ideals may turn out in the long run to be the same for all men, but their concrete realization in human society may take a variety of forms. There is not one world civilization and probably never will be, but there can be identity of civilized ideals. The realization of civilized ideals in African society in a form peculiar to Africa would constitute an African civilization.[7]

Knowledge is today shared transculturally, and the "concrete realization in human society" of ideals (or values as, in part, we have discussed them here) can be part of a worldwide pooling of resources. Today no one people or the people of no one larger cultural, national or geographic area is alone in recognizing that "there is a fluid situation susceptible of conscious modeling." A central task in any one society is to bring this within the awareness of all its members.

The Tasks Before Us

There are, therefore, quite concrete tasks before us, as Americans, if we are to make the contributions, the unique contributions, which can develop out of our special cultural heritage. Gaining freedom of value choice is a problem for all men, if mankind is to survive and if men are to look forward, in the language of Francis Bacon's period and culture, to "a restitution and reinvesting of man to the sovereignty and power which he had in the first state of creation." Initially, it is our task to provide the conditions within which a new generation growing up in our culture may be able to work toward and, insofar as it is already possible, exercise this freedom for their own and the world's benefit.

There are first the differences between our own and the generation now growing up which we must recognize if we are to be heard by our children. For example, it has come upon us with all the drama of surprise that men have achieved—not merely dreamed of—an omnipotent means of destruction. We can learn that this is so; we can learn that, having discovered these destructive forces, there is no single way or act by which we can rid ourselves of the danger for all time. But this is a different thing from being born and growing up in a world in which there is no alternative view. We must somehow learn to fit into our preexisting imagery the whole conception of simultaneity of experience on a worldwide scale. This is part of our children's heritage. We must learn to think of man as no longer wholly and inevitably earthbound. Our children are building into their first career dreams the possibility of space exploration. Young boys take for granted that they can be taught the skills necessary to take some part in space activities.

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[7] Ammishadai Adu. "Modern Science and the African: The Western Impact." *West African Review*. London: May 1958.

To the extent that we fail in our recognition both of the new and of the generation gap, we are in danger of turning our children away from reality or, at another remove, of being dismissed by them as being ourselves unrelated to reality. With our emphasis on the new and on the ability of the young to make a fresh start, we have a tendency to allow the past to slip away. As a result, we sometimes encourage, unwittingly, a kind of conservatism as each new generation must "discover" the things, the ideas, already there to build upon. We must, therefore, recognize and learn to bridge the gap between the two generations well enough so that we can use our trained experience and our disciplined imagination to look ahead into the actual world in which our children will have to assume adult responsibility and make new kinds of choices which no one now can foresee.

Then it is necessary for us to come to terms with contemporary knowledge. We can no longer tolerate the culturally determined dichotomization of "the sciences" and "the humanities." To treat these as "two cultures" [78] is to make us aware of the dichotomization, but "culture" is here a misnomer. The confluence of the many streams of knowledge in one tradition is culturally determined over time, and their arbitrary division is also culturally determined. If we are to keep the future open—and this is perhaps one of the major contributions we, as Americans can make, given our optimistic relationship to change and the new—we must be able to give our children a sense of knowledge as always incomplete, always interrelated. We must learn to know so that we may be able to teach our children what are the bases of knowledge, on which at all times and in all cultures men draw creatively and very differently, in all their varied artistic expressions. This can perhaps best be done by giving them a sense of time depth about states of knowledge and kinds of creativity. And certainly our ability to do this rests on our readiness to treat knowledge inclusively, instead of as split down some imaginary line which separates humanist from scientist.

Especially it is important for us to include, at every level, the knowledge that culture is manmade and subject to change by men. Again and again in the past, new knowledge has meant altering the relationship between belief and knowledge, as the two in any ongoing way of life draw on the same fund of imagery and give meaning to shared values. This is not, essentially, a new problem. Only its dimensions are new today. At the same time, it is crucial for us to realize and to convey to those who are learners that neither a system of values nor a whole culture can be treated like a machine whose parts are replaceable. Nor can they be taken apart and put together in some different way as machines can be. Rather we must find ways of communicating the fact that men who are makers of culture are also made, as a whole, by the experience of growing up in a particular culture at a particular time.

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[78] C. P. Snow. *The Two Cultures and the Scientific Revolution*. New York: Cambridge University Press, 1961.

In the past men have taken for granted the slow spread of new learning, over time, like a new stream forming its own channels. In conspicuous contrast have been the transforming ideas or beliefs or experiences which were to change the whole individual, a whole group, the whole world as rainfall might transform a desert. But by and large men have been content if *some* groups in a society have had the requisite knowledge to carry out the responsible tasks of that society. So, in Western societies, we have been content during the past four hundred years or so to have some individuals, some groups acquire the knowledge that was necessary for purposeful change. In this way we have continued into the present the existence of the great and the little tradition.

The first major break came with the new goal of universal education for all men, irrespective of their birth; in the United States this was coupled with dedication to each individual's freedom to move and, to change what he might have been merely by birth. So, today, there is among Americans a quite remarkable sharing of imagery of various aspects of the modern world even though only some of our children are growing up with the knowledge and the skills that give them control of the ideas so much more widely grasped. At all levels of our society, there are children who share in the imagery of science, but only some of them are assured of obtaining the learning experiences that would give them technical competence in a field of science or, eventually, open to them the doors of a profession.[79] We must be prepared to go much further and much faster if all our children are to take part in purposeful change as members of a national and a transnational community. From a hundred years' experience, we know that the great majority of the members of our culture have been able to obtain some grasp of the ideas involved in biological evolution. We must make it possible for this kind of learning to take place within a generation.

Realizing that we are continually making as well as being made by our culture, we must come to be able to think about it as well as to live it. We shall then be better able to grasp the fact that all men everywhere are the heritors and the creators of ways of living, which now, in a new kind of world, are no longer separated by barriers of place or time. Here also, with our high valuation of discovery and invention and the purposeful use of new ideas, Americans may be able to contribute at a high level to the inventions necessary for the creation and dissemination of new values. We have no way of knowing, now, what the process of diffusion and incorporation of values may be on a world scale; we do know that openness to the unknown can be learned.

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[79] Rhoda Métraux. "The Changing Image of the Scientist." Forthcoming publication.

Chapter 10

Education for Independent Valuing

Hilda Taba

IN her essay, Rhoda Métraux treats the problem of values and valuing in a very special way. While she does not explicitly state this, she might be thought to agree with Linton [1] that the shape of the future may depend more on the selection of values than on further development of technology. There is an ever-present danger of losing the freedom of value choice or of not gaining it in a manner commensurate with the significance of the issues on which choices have to be made. This danger is all too often overlooked in both the literature on education and the literature in the behavioral sciences which touch on the problems of mankind's future.

Restatement of the Métraux Theme

In developing her theme, Dr. Métraux seems to feel that American culture is an open one and that we have included the idea of change articulately and consciously as one of the aspects of life around which important values cluster. All cultures define some problems and the means by which those who grow up in that culture may solve them. There is always, however, a certain degree of latitude which provides both for the individual idiosyncrasy in expression of the values and for a way of meeting not only the familiar but also the new, the accidental and the strange. The problem then is really that of providing a greater freedom of value choice. Besides, the freedom of value choice may be less of an issue than that of "providing an adequate foundation for the exercise of choice, the kind of choice which will keep the future open."

Métraux explores several specific conditions which make a setting for value choices in the modern world. One is the danger of destruction by nuclear war. For the first time in the long history of man's effort to alter the earth, it is possible for man to "set in motion a process . . . which can irreparably damage and ultimately destroy the human species and, indeed, all living beings and perhaps the earth on which life depends." Man has created for himself an impending disaster, and this change is permanent. This shifts man's power over his future because there is no turning back from this condition while civilization exists nor is there any precedent for what is now necessary.

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[1] Ralph Linton, *et al. Culture and Personality.* Washington, D.C.: American Council on Education, 1941.

The second condition is the tremendous expansion of the interacting world. Paradoxically, at the same time, man has invented the means for bringing about a worldwide community and is making the first hesitant moves out from earth into space. This creates a qualitatively new experience which makes something possible that has never been fully represented even in the boldest imagination: the simultaneous sharing of an experience, such as the launching of Sputnik, by men the world over. This kind of participation in distant events also creates a situation which is without precedent. One is brought face to face with a "transnational sharing of knowledge and of culture values." With it has come the need for a new interpretation of man's mastery of the natural world and of the implications of this for the relationship of men to one another and to the goals toward which they strive.

From this it follows that the valuations of today need to include not only a longer time perspective but also a wider horizon. The valuing now has to occur in the context of the entire world. This includes cultures which are different from ours in their time perspective and in their ideas regarding purposeful innovation. These cultures are difficult for Americans to understand because their chief purpose is conservative rather than innovative. They have in their structure no built-in expectations of change. The fact of transnational sharing of knowledge and values sharpens the necessity of freeing our thinking of ethnocentric valuations and of the impact of cultural stereotypes. In a transnational world, ethnocentricity becomes a real danger, for it creates barriers and hostilities which only accentuate the difficulty of making common cause against the dangers that equally threaten the entire world.

The third important condition concerns the nature of change and the implications of change for man and human society. Changes in the nature of society and in man's perception of the world have always involved difficulties in solving problems because under conditions of change, data lead in directions that diverge from our expectations and involve an alteration of accepted goals and values. Each new shift has involved a necessity for "disassembling a configuration of images" with which we have interpreted the world around us. These images are only partly explicit and are bound up with feelings rather than thought. This feelingboundedness makes them difficult to alter, and unconscious valuations may outlast social realities.

Changes today involve yet more than that. They are so massive and so radical that they create a sense of discontinuity with the past and uncertainty about the future. For the first time in man's history, it is difficult to foresee what the future will be and the ways in which to prepare for it. No longer can either the present or the future be seen as a mirror of the past, and no longer can we use either the present or the past as a measure of the future. We are faced perhaps with a greater discontinuity than we know how to span.

The Reality of Freedom

A number of social analysts would agree with the foregoing statement of the problems faced by the Western civilization today. But not all would share the optimism regarding the degree of openness of American culture and therefore its readiness to implement the changes needed in the system of values and methods of valuing nor the optimism regarding either the possibility of defining clear alternatives or the capacity of man to exercise true freedom of choice.

Heilbroner, for example, would agree that the American culture, at least comparatively speaking, stresses plasticity and openness toward the future. He points out that the American attitude toward advance in a culture has also always been optimistic toward the future; it has been "based on the tacit premise that the future will accommodate the tidings which we bring to it. Optimism is grounded in a faith that the historic environment, as it comes into being, will prove to be benign and congenial—or at least neutral to our private efforts."[2]

But he also maintains that the massive changes introduced by science and technology have altered these conditions. We are now faced with the social consequences of technology which are contrary to the expected. In place of an automatic progress in all areas of life, the advance of technology has created unforeseen problems and dangers. The sense of the future is colored with a sense of disaster. The future can no longer be viewed optimistically or with assurance.

The sense of the source of change has shifted also. Instead of recognizable agents of change, we find ourselves faced with "an inexorability, relentlessness of social causation and social process as determinate as physical causation or physical progress."[3] The events of history come to us, as Heilbroner puts it,

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[2] Robert L. Heilbroner. *The Future as History*. New York: Harper and Brothers, 1960. p. 17.

[3] *Ibid.*, p. 31.

> . . . charged with surprise and shock. When we think back over the past few years what strikes us is the suddenness of its blows, the unannounced descent of its thunderbolts. Wars, revolutions, uprisings have burst upon us with terrible rapidity. Advances in science and technology have rewritten the very terms and conditions of the human contract with no more warning than the morning's headlines. Encompassing social and economic changes have not only unalterably rearranged our lives, but seem to have done so behind our backs, while we were not looking.
>
> These recurring shocks of contemporary history throw a pall of chronic apprehensiveness over our times. Reading the morning newspaper has become an act no longer anticipated with mild pleasure but with uneasy suspense. The bewildering turnabouts of fortune, the abrupt shifts of expectations, the awareness of the innumerable microscopic factors by which our destiny may be affected, all conspire to make of our encounter with history a frightening and disorienting ordeal.[4]

We no longer have a sense of order and a sense of mastery of events. We no longer can see the future as a culmination of the past and as "the growing edge of the present."

Nor does the familiar valuation of our ability to create a better world apply. Such faith in this ability as did exist or now exists was caused by the fact that we have never questioned the kind of world which was being created by the mass effects of science and technology and by the dynamics inherent in our prevailing economic institutions.[5] It is precisely this sense of mastery of the past which finds itself challenged so sharply by our present history and by our present situation:

> Try as we will we find our course steered by events over which we seem to exert little if any control—the threat of nuclear war, or the chronic disorders of the newly aroused nations of the East and South, or the relentless pressure of Communism, or simply internal changes in our own society.[6]

In other words, we have lost the sense of mastery of our own destiny and we seem to be in danger of being impelled by forces which neither precedent nor intuitive understanding illuminates for us, because these changes are "so vast, in a time-span so compressed, and with adjustments so convulsive that it is as if huge slippages were occurring in the deepest substratum of history." [7] Technology has created for us an environment in which, as Langer expresses it, forces are afoot that are "putting man's freedom of mind into jeopardy." [8]

In addition, the very built-in optimistic expectation and acceptance of change in our culture tends to block a realistic valuation of its content and implications because it makes it difficult for us to look at the process itself with an awareness, as Métraux says, of "the discrepancies, the disintegration, and the reintegration which are involved in the actual incorporation of the new." We do not yet quite realize the extent of the disentanglement of fact, faith, and of images by which we live that is required by the necessity of incorporating the massive changes which have occurred in rapid succession in the past few decades.

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[4] *Ibid.*, p. 13.

[5] *Ibid.*, p. 49-50.

[6] *Ibid.*, p. 55.

[7] *Ibid.*, p. 7.

[8] Susanne K. Langer. *Philosophy in a New Key*. New York: Mentor Books, 1951. p. 238.

Mumford suggests that we have allowed the machine to run roughshod over us precisely because we have allowed the machine technology to be excluded from valuation in human terms and treated it "as a creature outside of historical experience and not subject to ordinary moral or political judgment."[9] He points out that Toynbee has mustered considerable evidence to show that beyond a certain point technical progress may spell human arrest if not retrogression. Where does man come in, Mumford asks, and indicates that "we seem to be paying for an excess of physical power by our spiritual impotence, for an excess of rational order by our commitment to irrational goals, and for an excess of automation by our inability to control the process once it has started."[10]

What this all seems to mean is that progress in technical and scientific realms does not necessarily spell progress in the realm of values, goals, and concern for human welfare. In the words of another social analyst, by increasing man's destructive capacities, science provides for us not an "escalator which will carry [man] automatically to utopia, but an elevator which can carry him either up or down."[11]

Establishing an Educational Perspective

In assessing the task before education in terms of the implications of the preceding chapter, several points need to be kept in mind. First, education is an extremely complex process. The decisions made regarding any aspect of it need to be founded in knowledge drawn from several disciplines and several perspectives. For example, education may get some of its goals from the analysis of social and cultural needs and problems, but it must reach also for psychological understanding of the processes of learning and the dynamics of changing individuals.

Furthermore, while educational decisions must be founded in knowledge drawn from other disciplines, this knowledge cannot be directly transformed into educational action, including curricular decisions. It must be filtered through many other considerations, translated into proper criteria for making educational decisions, and related to the realities of the functioning of educational institutions in our society. It would be a folly to attempt to turn every suggestion emerging from the analysis of social or cultural needs into an educational platform without an appropriate interpretation of what these facts mean for education and a corresponding analysis of what the proper role of education in our society is.[12] To think, for example, that education alone can turn mankind from its drift toward total destruction to a creative implementation of its wish to live peacefully or that education could free the next generation from the values and methods of valuation which have been ingrained by centuries of iteration and reinforcement in the very substance of culture, behavior and institutions, is expecting the impossible. One must remember also that education can only change individuals; it cannot change social institutions except indirectly through whatever it is able to implant in individuals.

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[9] Lewis Mumford. "From Erehwon to Nowhere." *The New Yorker* 36: 180, October 8, 1960.

[10] *Ibid.*, p. 184.

[11] Huston Smith. "The Scientist and His Duty." *Saturday Review of Literature* 38: 144, April 2, 1955. For the analysis of dangers to human beings as humans from the technological mass culture, see also: Erich Fromm. *The Sane Society.* New York: Holt, Rinehart, Winston, Inc., 1955. He speaks of alienation, loss of sense of identity, loss of autonomy, and the creeping paralysis of conformity.

Several psychological considerations come to mind as one considers some of the insights regarding freedom of value choice developed in the preceding chapter. Métraux mentions the fact that values and valuation are strongly bound to feelings. These emotional components also are most difficult to deal with and to alter. Socialization processes implant certain implicit values and the feelings attached to these in children long before the schools or conscious education can reach them; these processes continue to operate for students throughout their formal education. Much of this kind of learning is unconscious; it becomes imbedded through countless repetitions of behavior and action until the value reactions are almost automatic. The processes of social learning themselves include imitation and emulation of important persons, as well as direct inculcation in the process of growing up. The values so learned tend, of course, to reflect the values of the environment in which they were acquired. They, therefore, also share in the parochialism of the particular family, neighborhood, and peer society which constitute the cultural environment of the growing individual.

To be sure, a system of values, at least in America, may include a certain expectation of change. But at the same time, the values are enmeshed with emotional tone, moral implications, and behavior expectations that represent fixities, regularities and inflexibilities. An expectation of the new is the least prevalent as far as standards and values are concerned. The feeling tone surrounding values and other social institutions is more likely to cultivate rejection of the new and a low capacity to tolerate ambiguity, uncertainty and relativism. For example, we call innovators in the realm of technology inventors, but innovators in a social system, rebels or revolutionaries, words which do not carry a positive connotation in American usage. All this, of course, is contrary to what Métraux suggests is needed for freedom of choice of values, for invention of new values, or as an appropriate basis for making the choice.

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[12] For discussion of the multiple bases for making curriculum decisions, see: Hilda Taba. *Curriculum Development Theory and Practice*. New York: Harcourt, Brace and World, 1962.

Ethnocentricity as a Barrier

The existence of ethnocentricity as a barrier to cross-cultural valuation is one example of this difficulty. The socialization process cultivates ethnocentricity, not only by the limitations in comparative experience with values that it offers, but also by cultivating a tendency to universalize and to make absolute whatever values are taught or learned. A child cannot learn that something is good without at the same time also learning that it is universally so. It is, therefore, not easy to attain transcultural objectivity. It is said that the last thing a fish learns is that it lives in water. In a similar fashion, the last thing a human being learns on his own is that the values and standards by which he lives are culturally conditioned and by no means universal. Changing this orientation involves the necessity of changing a whole constellation of deep-seated feelings.[13]

The fact that the values learned in the socialization process are largely implicit rather than explicit and that the process itself is unconscious only adds to the problem of rendering them conscious, flexible or alterable. This is the very reason why there is such a lag between technological change and change in the value systems in modern cultures. Value systems simply resist reality orientation, and the greater the rate of change in cultural realities, the wider the gap between them and the values which direct the conduct and awareness in the midst of these realities. The literature on the conflict of values generated by this condition is too widely known to be expounded upon here.[14]

The presence of uncertainty about the future in a society characterized by rapid change suggests an additional consideration. According to some psychologists, faith in the future is one of the fundamental factors in security and anxiety. Schachtel, for example, points out that the potentiality of anxiety is a powerful factor in the life of man.[15] Even such an ordinary act as jumping into water from a high board can arouse general anxiety; one has assurance that water would carry one's body but can never know precisely in advance what will happen. A simple act such as walking requires faith in the future.[16] When, with the thrust of one foot forward, support is withdrawn from the center of gravity of the body, we swing the body ahead in expectation of finding support. Any direct encounter with the world implies being open to the world and its impact and responding to this impact. Yet, man's anxiety about leaving the "embeddedness" in such familiar stabilities as the attitudes of one's friends, the countless patterns of routine and convention, and the familiar value standards is one of the most powerful antagonists of "world-openness." It is the anxiety of loneliness and of being different which induces conformity to the existing cultural pattern.[17]

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[13] *Ibid.*, p. 73-74 and Chapter 10.

[14] David Riesman and others. *The Lonely Crowd.* Garden City, New York: Doubleday and Company, 1956; Theodore Brameld. *Cultural Foundations of Education.* New York: Harper and Brothers, 1957; Jacob Getzels. "The Acquisition of Values in School and Society." *The High School in the New Era.* Francis S. Chase and Harold A. Anderson, editors. Chicago, Illinois: University of Chicago Press, 1958; and Erich Fromm, *op. cit.*

Needed Freedom of Thought Processes

A third point emerges from consideration of the fact that human personality is an organized unit and that the various mental processes, such as feeling and thinking, tend to be interdependent psychological processes. Hence, freedom of value choice suggests the need for freedom of thought processes; inventiveness and creativity in valuing are bound up with productive and creative thought processes. The question then must be raised regarding the nature of the cognitive processes that are needed to deal with values creatively and imaginatively, both in their concrete meaning in one's own life and culture and in their abstract meaning as it applies to erecting a concept of comparative value systems in various cultures. To acquire an objective and critical orientation toward the values of one's own culture requires a comparative approach to values. And in reverse, acquiring a cosmopolitan orientation toward other cultures demands some degree of objectivity toward one's own values. These are operations that not only wrench feelings, they also require discipline and autonomy of thought. If we add to this the need for developing a value system adequate to deal with an as yet unknown future and unforeseen conditions, we have a hint of the nature and the level of cognitive processes involved.

Little is known as yet about the mental processes involved either in perceiving the concrete values embedded in behavior or in the abstractions involved in seeing them as a part of any value system, let alone a transcultural value system. We do not yet know how children and adolescents acquire the power for abstract and formal thinking, especially relative to the problems of values, apart from their specific context and independent of personal feelings about the specific form in which the values are expressed. We know, however, that it is difficult to realize the fact that we all live in a culture which is man-made and that the matters which we regard as part of the scheme of things represent nothing but our own ethnocentric cultural perspective. To acquire an objective and critical orientation toward one's own values requires not only a high degree of abstraction but also a high degree of objectivity about one's culture, which by using currently employed techniques, it may take a lifetime to learn.

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[15] Ernest G. Schachtel. *Metamorphosis*. New York: Basic Books, 1959. p. 47.

[16] Edwin Strauss. "Die Aufrechte Haltung." *Monatschrift für Psychiatrie und Neurologie* 17: 371; 1949.

[17] Ernest G. Schachtel, *op. cit.*, p. 52-54.

We can be sure, however, that much greater attention to developing autonomous and creative thinking is needed than is now the case. If one can trust the assessments from recent studies, our present cognitive processes are often characterized by low productivity, by an inability to use generalizations and principles for understanding new phenomena, and especially by lack of autonomy and imaginative extension of ideas and generalized forms of inquiry.[18] Considered as one basis for making value judgments, these characteristics seem to add up to a foundation for conformity rather than for inventiveness in values and methods of making value choices.

The Task of Education

This elaboration of the problems connected with increasing freedom for value choice is not made for the purpose of generating pessimism about the role of education. This approach is only for the purpose of avoiding sentimental optimism and for indicating as realistically as possible the nature of the educational task.

It must be pointed out also that many of the elements of the task suggested by Métraux have already been treated in educational literature. Discussion of the implications of social change for education has been abundant ever since the 1930's, although the emphasis on values is more recent. For example, Chase lists among the new social conditions which set new tasks for education the following:

1. A tremendous enlargement of the environment to be understood and the culture to be transmitted

2. A necessity for the establishment of intercultural communication among the diverse cultures of the East and West as a basis for building a world community

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[18] See, for example: J. R. Suchman, "Inquiry Training: Building Skills for Autonomous Inquiry." *Merrill-Palmer Quarterly*, July 1961.

3. The difficulties involved in sustaining a wide latitude of free individual choices in a world of magnified power and shrunken space and time

4. A constantly accelerating rate of change which makes forecasting hazardous and outspeeds the efforts of education to draw abreast of needs.[19]

In defining a social perspective necessary for a theory of curriculum development, Smith enumerates the increasing interdependence of all peoples, the increasing independence of the suppressed races, the assimilation of national rights in a world order, and the transformation of habits and values from earlier cultural phases as conditions which require greater stress on developing values; cultivating a realization that not only has the game changed, but the rules have changed also; and including in our intellectual discipline the capacity of "sympathetically exploring the frame of mind out of which one's opposition thinks and acts." The question Smith raises is: Can we learn the methods of social engineering rapidly enough to control the social machine before it either enslaves or destroys us? [20]

In the light of the foregoing, it is evident that the educational implementation of freedom for value choice must take several directions at the same time. Only a few of these directions can be discussed in the confines of this chapter.

Emphasis in Education upon Values and Feelings

Many anthropologists see values as the central emphasis of education. Kluckhohn, for example, maintains that education, like anthropology, must see values—their perpetuation and the constant critical scrutiny of them—as at the heart of its problem, whether emphasis be upon the enrichment of mind or upon the formation of character.[21] Brameld goes on to point out that American culture needs to do more than grope in its effort to articulate and implement the values and that schools have a role to play and are playing it badly.

> However sharply the legion of critics of our American educational system fails to agree on many propositions, there is one on which agreement seems wide: our schools and colleges, by and large, are neither consistent nor clear about the values they are obliged to instill in the young. . . . Insofar as American education has tended to regard its chief business as that of conveying information and training in skills, it has tended to store its values, so to speak, in

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[19] Francis S. Chase. *Education Faces New Demands*. Pittsburgh, Pennsylvania: University of Pittsburgh Press, 1956.

[20] B. O. Smith. "Social Perspective as the Basic Orientation to Curriculum." *Toward Improved Curriculum Theory*. Chapter 1. Virgil E. Herrick and R. W. Tyler, editors. Supplementary Educational Monographs, Number 71. Chicago, Illinois: University of Chicago Press, March 1950.

[21] Clyde Kluckhohn. "Foreword." Theodore Brameld. *Cultural Foundations of Education*. New York: Harper and Brothers, 1957. p. xii.

> the educational attic. The result is that values . . . are more often treated with a kind of sentimental deference rather than critically and constantly reinterpreted as of importance to the whole theory and practice of education in a democratic culture.[22]

A variety of causes may account for the inadequate teaching of values. Some writers, among them Brameld, find the cause in the fact that cleavages and tensions are endemic in the moral, religious, political and other institutions of our times. Therefore, the institutions like the schools are confused or else are not in a position to tackle the issue of cultural values. Under these conditions, values and issues involving valuing tend to be closed to rational thought, both in the culture and in the schools. Even the suggestion that human values and goals receive a priority over the more profitable activities "smacks of suspicious radicalism."[23] The attempt to reorganize one's orientation from the past has an "impious aspect," as Burke points out.[24]

There is no doubt that the whole matrix of values and valuation is tied in with certain sanctities which some persons believe should not be touched by rational analysis, let alone by criticism and experimentation.[25] Educators and teachers are fully acquainted with this difficulty for they have debated over and over again whether or not to treat controversial issues in schools and, if so, how to go about it. What would be involved, if the curriculum and teaching were addressed not only to the current controversies but also critically examined for their consistency with social realities? How much more is involved in an attempt to develop inventiveness in valuing which the new as yet unforeseen circumstances of future life may demand? Experimentation with values strikes at the very core of social stability and, therefore, is the most threatening thing to do.

Others find the difficulty to come from the overwhelming shadow of the physical sciences. The attention to "non-man" has impeded the development of the science of man as a foundation for practical judgment and valuing. The strong orientation to physical science and scientific method prevents us from dealing with values and other "compelling forces of concrete realities in a world of man."[26] As Burke[27] observes, there is a "staggering disproportion between man and non-man." In such a scheme of life, there is no place "for purely human boasts for grandeur," such as is claimed by Bacon in the passage cited by Métraux, or for "forgetting that men build their cultures, by huddling together, nervous, loquacious, at the edge of an abyss."[28] This cognitive bias in interpreting man's place in the universe has its parallel in education, namely in the emphasis on knowledge as against value judgments.

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[22] Theodore Brameld, *op. cit.*, p. 13.

[23] Robert L. Heilbroner, *op. cit.*, p. 199.

[24] Kenneth Burke. *Permanence and Change: An Anatomy of Purpose*. New York: New Republic, 1935.

[25] Jacob Getzels. "The Acquisition of Values in School and Society." *The High School in the New Era*. Francis S. Chase and Harold A. Anderson, editors. Chicago, Illinois: University of Chicago Press, 1958.

[26] M. D. Smith. "Anthropology and Psychology." *For a Science of Man*. John Gilpin, editor. New York: Macmillan Company, 1959. p. 45-46.

[27] Kenneth Burke, *op. cit.*, p. 45.

Still others add that the devotion to specialized knowledge is also responsible for cultivating a "social irresponsibility" on the part of scientists and for a great unevenness in the application of rational thought from area to area.[29] A physicist who would be most particular about supporting his conclusions with evidence in his own field can blithely promote irresponsible opinions in such an area as education supported by nothing more than a strong assumption based on personal feeling, as the recent arguments about the shape and the purpose of public education have fully demonstrated.

Whatever the reasons, current climate in education and in communities is the reverse of what one might expect: values and issues tend to be closed to examination by rational thought, and the education of feelings is treated as an unnecessary frill.

Integration of Knowing and Valuing

What, then, are the possibilities? Métraux mentions the importance of integrating the process of evaluation or valuing in all sciences. Education for difficult value choices cannot be relegated to any isolated portion of the instructional program. It must penetrate every bit of it, from a lesson in chemistry to the relationship with peers. When education is overly concerned with factual neutrality, it leaves intact the values and the character structure which youth absorbs in our culture. Knowledge about technology and science and an understanding of its human consequences are separated from each other, with the result that, while the modern man

> . . . commands cosmic sources of energy, flies at the speed of sound, this god-like being displays the morals of a juvenile delinquent within him. At the very moment of his achieving these extraordinary powers, neurotic anxieties and hatreds have erupted. . . .[30]

In other words, erudition alone is insufficient to bring about either maturity or wisdom.

No doubt, integration of valuing with all sorts of knowledge would be helpful. But in some quarters, there is doubt that such integration would be sufficient to bring about the desired maturity of goals and values. Kubie suggests that if education is to exercise an adequate countervailing impact to a technology powerful enough to read the human factor out of existence, serious reconsideration is needed in the entire educative process—in the setting in which we impart education, in the methods by which we teach and learn, in the data which we impart, and also in the symbolic process we use, inasmuch as it represents a "condensation of symbolic values." [31]

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[28] *Ibid.*

[29] Huston Smith, *op. cit.*

[30] Lewis Mumford, *op. cit.*, p. 183.

In addition, certain criteria need to be applied to this entire process. For one thing, the process must be conducted in terms other than adjustment. Individuals need to be helped to come to terms with their own culture and yet to acquire an experimental attitude toward it.

Toward this end, educators must know what they can do with the human materials with which they work and how to do it most effectively. This means, in turn, that both social scientists and educators must be able to predict the consequences of their attempts to alter the course of human behavior. They need to understand also the processes of culture and the way these shape the individual. Social sciences at least may help extend the areas in which reason can find the discoverable regularities which "help a little to halt the flight to the irrational, the terrified retreat to older orthodoxies, which we have seen on a mass scale in this century." [32]

Use of Techniques To Extend Feeling and Sensitivities

Schools also need to institute processes which are effective in changing feelings. Such a task requires appropriate strategies of teaching and learning. The first requirement for these is that they come as close as is possible to the conditions under which feelings are learned in the first place. They must exert some impact on emotions, make identification possible, and touch somehow a sense of relevance in the particular individual. Feelings, in other words, are learned not by being "learned about" but through experiences and responses to materials that reach a deeper core of personality.[33]

Experiments conducted with training in human relations have pointed a way to the development of useful techniques and materials. The analysis of ongoing life experiences of the students from the standpoint of causes, consequences, and differences in feeling reactions is one approach. Using literature as a means of extending the power to project one's self into the values and motivations of other persons is another. A greater place for exploration of idiosyncrasies in values and valuing is also indicated. Diagnosis of current values and feelings is useful. But, above all, training in accepting and treating feelings as facts to be encountered and dealt with in human situations is essential.[34]

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[31] Lawrence S. Kubie. *Neurotic Distortion of the Creative Process.* New York: Noonday Press, 1961. p. 116-32.

[32] Clyde Kluckhohn, *op. cit.*, p. xii-xiii.

[33] Hilda Taba, *op. cit.*, p. 45.

Reinstatement of Human Values

Perhaps the most difficult task which Métraux's discussion suggests is that of redefining man's place in the universe, reassessing the sources of our values, and reappraising the essential meaning of valuing. According to her analysis, such rethinking must encompass our definition of the individual, our interpretation of the meaning of equality, our interpretation of individual and group differences, our attitudes toward personal conviction and responsibility, our beliefs about mutability of values, our conceptions of change, and our attitudes toward conservation and innovation. While our conceptions of these matters is different from those of a century ago, they still may not be different enough to meet the current conditions and still may be insufficient for creating the image of the future we may need. If the problems of today are unique and without precedent, then the solutions need to be unique and without precedent also. What this involves by way of change in our process of valuation and in the concepts of value that we cherish is not yet clearly expounded anywhere.

Some writers insist that we are already well under way in denying even the basic fundamentals we have held to concerning the sanctity of an individual, his personal autonomy, and his right to choose his own values. Fromm, for example, insists that we live in an alienated world in which the individual no longer belongs to himself, in which anonymous authority directs his values and behavior, and in which the human element has diminished as a consideration of importance. He insists that autonomy of decision no longer is our birthright and that, instead, conformity to the common pattern rules our lives because the technological society insists on conformity in all areas and especially in the work life. When we have to follow the tempo of machines, when we purchase rather than make things that we need, we also acquire a mentality which appraises or values everything in terms of time or of money rather than in terms of human consequence (a million-dollar flood and a thousand-dollar arson, plus two lives). All this spells danger to spontaneity, genuine expression of self, and freedom. And the failure to gain these is a serious defect in any culture.[35]

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[34] Margaret Heaton. *Feelings Are Facts.* New York: National Conference of Christians and Jews, 1952; Hilda Taba and Deborah Elkins. *With Focus on Human Relations.* Washington, D.C.: American Council on Education, 1950; Hilda Taba. *With Perspective on Human Relations.* Washington, D.C.: American Council on Education, 1955. Chapters 3-5.

While one may question Fromm's pessimistic appraisal of our power to withstand the mammoth impact of our own technology, there can be no doubt in anyone's mind that examination of the ways of reinstating fundamental human values poses a serious problem that should concern educators. It may even require priority above that of providing a sufficient number of scientists or seeing to it that every Johnny can read competently.

Development of Cosmopolitan Sensitivity

As has already been suggested, cultural ethnocentricity is a natural by-product of the socializing processes in a culture. Today, in a transnational world, such ethnocentricity is also one of the serious shortcomings and a danger. There is a fairly widespread recognition of the fact that living in a world with vastly extended horizons requires a greatly extended sensitivity and capacity to understand and to empathize. Since culture has no mechanism within itself to overcome ethnocentricity, the development of cross-cultural sensitivity, whether with regard to other national cultures or in relation to subcultures within a nation, is therefore one of the tasks of the schools if they desire to prepare people to live in the new world of interdependent cultures. The school needs to counteract the inevitable parochialism of socialization patterns and to lay the groundwork for extension of transcultural sensitivity and understanding.

To cut through cultural ethnocentricity is a many-sided task and thus requires a many-pronged approach. It requires, for example, not only an emotional and conceptual understanding of cultures other than one's own but also an objectivity about one's own culture.

In this area as well as in the general area of values and feelings, the development of adequate approaches is handicapped by an assumption that factual knowledge has the power to change attitudes and feelings. As a consequence, it was assumed that a greater coverage of the geography, history and languages of the various peoples will also produce insight into their value systems and ways of thinking. However, experiments in teaching transcultural sensitivity have suggested that knowledge *per se* has no such power. A greater impact is made when the curriculum concentrates on certain dimensions of life, such as ways of organizing families, the various roles family members play, the methods of rearing and educating children, and the ways of organizing an orderly community life, and then subjects these topics to a comparative treatment.[36] Such an approach at least permits gradual discovery of the idea that all cultures are organized to provide for needs common to all mankind and that differences occur in the ways in which each culture does it.

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[35] Erich Fromm. *The Sane Society*. New York: Holt, Rinehart, Winston, Inc., 1955. p. 15.

In addition, as in a general approach to teaching feelings and values, new inventions of teaching-learning techniques are also called for, such as appropriate rotation of experiences designed to extend information with those focusing on opening up new feelings, insights and sensitivities. The studies in intergroup education found an additional source helpful, namely, the use of the heterogeneity within the school population to bring about the first step in eliminating ethnocentric feelings and stereotypes. In many ways, the heterogeneity of the American public school population represents a laboratory for developing literacy about the ways in which values and valuations differ from culture to culture and about the psychological meaning of these valuations. School life and activities can be used to lay the groundwork for developing both an acquaintance with divergence and a comparative understanding of the ways in which all people are alike.[37]

Our Goal: A New Way of Thinking

Another task of transcultural education that transcends or perhaps encompasses the others is to create minds that can cope with the problems of living in a rapidly changing and vastly extended world, minds that are capable of the continuous reorganization of concepts with which to interpret the world. The rapid obsolescence of the images with which we interpret the world around us is a condition of modern life. How difficult it is, for example, even for the fairly well-educated person to perceive the fact that the world is moving toward a state in which the white culture is not dominant. How hard it is also to visualize that the entire known world may be shattered at some one person's whim or mistake in pushing the wrong button.

Even those skilled in objective analysis of social facts cannot rid themselves of concepts which reflect the immutability of the familiar world, with unchanging continuity in the characteristics of human behavior and social life as we know them. We need minds that can cope with the fragility of knowledge and concepts in a changing world. Young people need to face the possibility of living with continuous uncertainty and with a continual call for revising anything they believe to be true or count on as regularity. This requires a mental system totally different from what we have ever known.

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[36] See, for example: Contra Costa Schools. "A Study of Comparative Communities." Social Studies, Grade 3. Pleasant Hill, California.

[37] Hilda Taba, Elizabeth Brady and John Robinson. *Intergroup Education in Public Schools*. Washington, D.C.: American Council on Education, 1950. Chapter 4; Hilda Taba. *School Culture*. Washington, D.C.: American Council on Education, 1955.

Redefinition of Knowledge

One step in this direction is to reconsider the role of past wisdom and especially the ways of using it. Much of our school program is predicated on the assumption that it is necessary to steep young minds in facts before they are able to think. They must be at home in the cultural background before they can contemplate the foreground. Consequently, we dedicate our curriculum to "covering ground" and pay meager attention to the development of conceptual systems, methods of inquiry, or cognitive processes in general as these are helpful to autonomous thinking.

Contemplation of the effects of technology and its attendant explosion of knowledge has brought this assumption newly under debate. Questions are raised about the extent to which such mastery of "background" is useful in creating insights for understanding today's world, let alone the world of the future. There is even some speculation regarding the extent to which a thorough steeping in the past heritage may blind and condition the understanding of the new by binding the mind to concepts and thought forms that no longer apply. This is obsolescence in a new form—the obsolescence of concepts and thought forms embedded in organized knowledge which shape the mind to render it incompetent to deal with the shifting problems and dilemmas of a rapidly changing culture.

New Focus on Nature of Teaching

Considerable attention has been devoted recently to studies of what is variously referred to as productive, creative or autonomous thinking. The result of this attention has been a new focus on the ability and the necessity for independent formulation of concepts and generalizations and the facility to put these concepts and generalizations to work to create new knowledge. This process of learning is often characterized as discovery learning, and it capitalizes on developing methods of inquiry which can be transformed from one situation to the next.

This is a far cry from what now happens in schools. To provide conditions for the development of such an inventive and creative mind, it would be necessary to reorganize the curriculum so as to rid it of conformity pressures both in the content that is offered and in the reactions to content that are expected. That conformity and uniformity are far more potent than is indicated even by the similarity of topics and subjects taught has been shown by some recent studies of teacher acts in the classroom. These investigations indicate that not only do all students in many classrooms study precisely the same content, they also are expected to find similar answers and to find them in a similar manner. In short, the major portion of teachers' acts is directed to controlling both the nature of the answer and the manner of arriving at it. The result is not only systematic failure to develop autonomy and individuality but also systematic pressure for conformity and an erosion of whatever autonomy and creativity children possess.[39] This conclusion is supported by countless observations regarding the increased stereotyping of thought and feeling and deletion of spontaneity that comes as children advance in grade levels.

Conformity pressures are no doubt still greater in the realm of values if on no other grounds than that a society must instill in individuals some common values and valuations in order to persist as a society. Nor are the pressures limited to teacher acts alone. They are present also in the kinds of materials used and in the ways the curriculum is put together. Texts, for example, are full of predigested generalizations that can only be remembered. Materials which invite reflection, interpretation, or relating facts to each other are scarce. They rarely offer data that require interpretation or call for the higher thought processes, such as logical inference. This danger is further enhanced by an application of technology to educational processes, such as the use of television and teaching machines. Inserted as they are into poorly developed teaching strategies from the standpoint of the development of cognitive processes, these devices promise to increase the conformity model of learning by deleting even the possibility of truly responsive feedback and interaction.

New Studies on Nature of Thinking

Only recently has the nature of thought processes and their role in learning and teaching come under systematic scrutiny or become a subject of experimentation. New programs in mathematics are being designed to enhance the possibility of students' understanding the essence of the discipline by practicing the discovery method, that is, by being helped to develop inductively and on their own the essential principles of the field. Research projects are under way on such topics as inquiry training in the hope of discovering a generic method for autonomous thinking by aiding students in a method of productive questioning. Other studies are examining the nature of productive, creative, and critical thinking.[39]

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[39] Marie Hughes and associates. "Assessment of the Quality of Teaching in the Elementary Schools." Salt Lake City, Utah: University of Utah, 1958. Mimeographed.

So far, most of these studies have been conducted in the context of science and mathematics, doubtless because the fields are neater and more precise and also less demanding as far as organization of principles and laws is concerned. Similar studies are needed in the social and behavioral sciences. Of course, it will be much more difficult to study the role of cognitive processes in these areas. The application of rational thought is more complex in any area that concerns human or social behavior. Whatever principles apply are less universal. The situations tend to be unique and therefore need to be interpreted in multiple dimensions. The causation is usually multiple rather than single; and, as has frequently been pointed out, the tendency to stereotyping is rather strong. It will also be much more difficult to experiment with creative thinking. And the difficulty is still greater as far as values and valuations are concerned. At any rate, it would be dangerous to apply the model built from thinking in mathematics and science to thinking in social sciences and valuation.

Meanwhile, it behooves us to keep the treatment of values as open as is possible and to prevent a premature universalizing of either personal or cultural values. We must also remember that autonomy and creativity in valuation is the greatest achievement of maturity that an individual can attain. Therefore, to realize it requires a foundation of independent thought in many other areas.

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CITIZENSHIP | NEW INSIGHTS & APPROACHES

HOW can we do a better job of educating for effective citizenship? This question has properly attracted much attention in American schools. We accept the cruciality of success in achieving this paramount goal of good education. Almost every decade, we renew our resolution to move more vigorously toward its achievement.

Yet in this field, despite the many large-scale studies, we often experience a kind of disenchantment with results. New "programs" appear regularly on the scene, with high hopes and heavy subsidy. But when the money goes and the publicity subsides, we are left to wonder about the progress that may have been claimed.

Often we have come back once again to a feeling that perhaps the best preparation for democratic living is to live democratically. Most of our schools have done a pretty good job of making this possible, either deliberately or through accommodation to the culture. The schools are in and of the culture, and perhaps children will learn to live like Americans, whether or no.

But is there more to be done? There is always the prospect that if we knew enough, we could make surer than we now do that children and youth in our society would understand the why as well as the how of democratic living. Thus, we continue our search for new insights into what kinds of learnings might make a difference and also what kinds of teaching.

In his chapter, Lloyd Cook reviews many possible sources of germinal insights. Against a broad background of concern, he points up the possible relevance of the studies of the delinquent culture and the new understandings of how conceptions of self and others bear on the development of normal and deviant behavior. In recommending a freshly realistic approach to "citizen education," he reports also on the analyses of community power systems and the studies of the effects of mass media. He provides a critical framework for viewing the contributions of those who have reflected upon and been inventive about the role of groups as change agents. Finally, he draws together some lessons from recent investigations of value development.

In discussing the curriculum implications of these new insights, Victor Lawhead opens his chapter by highlighting the continuing controversy between meeting individual needs and providing for common understandings. He proposes that what is needed for citizenship education is the kind of program that makes it possible for children and youth to engage in an interdisciplinary pursuit of real-life problems. For him, this kind of opportunity for breadth of study and full involvement can best be achieved by the upward extension of a general education program that provides both more time for and more direct focus on the study of such major problem areas as those that have been defined by Cook.

Chapter 11

Developing Good Citizens | Sources & Positions

Lloyd Allen Cook

CITIZENS are born, not "developed"; that is, citizenship is a legal concept, with a long history in the law of every nation. Who is and is not a citizen of the United States, while not defined in the Constitution, is made explicit in other documents, notably in the Fourteenth Amendment, and by court decisions wherein individual rights and duties are adjudicated. Evidently something more—and different—has been read into the topic, "Developing Good Citizens," by the planners of this yearbook.

What has been assumed is, obviously, an image of worth and wisdom, an ideal of the *good* citizen. Further, the vision has been put in dynamic form, thus made a function of education. That this education is lifelong, that many influences share in it, that the nation's well-being depends on it can be taken for granted. Good citizenship is, as Aristotle said, "the working of the soul in a way of excellence." He might have added that this has always been a problem, for human beings have a disconcerting way of being human.

Call to Citizenship

The task of being a good citizen is, by its very nature, an onerous one, all things considered. It gets overlaid with personal concerns, pushed out of shape by vested interests, or is otherwise lost to view. For whatever the reason, every social system (as large as a nation, as small as a family) has periodic summonses to citizens, in particular at times of crisis. The typical call is warming to the heart; it has emotional appeal. Though put in reasoned terms, it conjures up hopes and dreams and ambitions. It is most effective when expressed within a ceremonial framework, a sacred ritual.

Several American presidents have shown this mastery of phrases and ideas, notably Lincoln, Wilson, and the Roosevelts. President Kennedy's Inaugural Address is a good example. This address was, incidentally, featured in all mass media, thus seen or heard or read around the world.

Mr. Kennedy speaks first of human rights:

> The world is very different now. For man holds in his mortal hands the power to abolish all forms of human poverty and to abolish all forms of human life. And yet the same revolutionary beliefs for which our forbears fought are still at issue around the globe—the belief that the rights of man come not from the generosity of the state but from the hand of God. . . .
>
> Let the word go forth from this time and place, to friend and foe alike, that the torch has been passed to a new generation of Americans . . . unwilling to witness or permit the slow undoing of those rights to which the nation has always been committed, and to which we are committed today.

After sections on hardships, best efforts, and the United Nations as the hope of mankind, the speaker turns to the cold war. He asks, earnestly, that nations begin anew their quest for peace:

> Let both sides, for the first time, formulate serious and precise proposals for the inspection and control of arms—and bring the absolute power to destroy other nations under the absolute control of all nations.
>
> Let both sides join to invoke the wonders of science instead of its terrors. Together let us explore the stars, conquer the deserts, eradicate disease, tap the ocean depths, encourage the arts and commerce.
>
> Let both sides unite to heed in all corners of the earth the command of Isaiah—to "Undo the heavy burdens . . . let the oppressed go free."

There is, presently, Mr. Kennedy's own dedication, followed by an appeal to his countrymen:

> In your hands, my fellow citizens, more than in mine, will rest the final success or failure of our course. Since this country was founded, each generation has been summoned to give testimony to its national loyalty. The graves of young Americans who answered that call encircle the globe.
>
> Now the trumpet summons us again . . . not as a call to battle, but a call to bear the burden of a long twilight struggle. . . . And so, my fellow Americans: Ask not what your country will do for you—ask what you can do for your country.

One is inclined to comment at length on this address, its logic and poetry, strength and power, sense of the mystical and sacred. Suffice it to say that here is, in as authoritative a way as possible in a republic, a statement of good citizenship at the national level.

The persistent theme of this address is *sacrifice*, with the confident expectation that every citizen will do his duty. Stress is, and rightly, on ends rather than means, for men can agree fully on goals whereas they differ widely on methods.

Facts, Values and Action: Their Relationships

In most civics books, a good citizen is pictured in terms of his rights and duties, often in contrast to noncitizens such as aliens. Of course such data have uses, yet they do not educate well for practical thought and action. The basic content of school textbooks is a study of federal and state constitutions, duties of officers, the structure and processes of government. If the young would learn these facts, they would in theory become good citizens.

Facts Are Not Enough

"Many of us, I fear," remarks John Dewey, "having learned these facts went out into adult life and became the easy prey of political machines and misrepresentation." [1] The rub, he implies, lies in the kind of material taught, bare bones with no meat on, no motivational force. The larger principle at issue can be succinctly stated: What is taught is more likely to affect action if it is learned in relation to action.

This principle, more than any other, complicates the process of effective citizenship education. To see this point in context, let us assume that, whatever else citizenship is, it is a relationship a person creates with other persons, a way of joining man and society to serve the public interest. Asked to define the latter concept, most of us can readily get tied up. "The public interest," says Lippman, "may be presumed to be what men would choose if they saw clearly, thought rationally, acted disinterestedly and benevolently." [2] Who is to say what these abstractions mean? In any particular argument, who speaks for the public good?

What is at issue are values, the criteria used wittingly or not in making decisions which involve the common weal. That men will differ in their views, differ more in a democracy than outside, is an ancient political truth. This is their right and in it a nation finds strength. It is possible, however, if a citizen so elects, to place his values within a large framework. Hartmann, for example, gives six criteria for ordering values:

1. Inclusiveness. A value that affects all men rather than some men is better, other things equal.

2. Permanence. A value that lasts, endures over time, is superior to one whose tenure is short.

3. Irrevocability. A value that is not replaceable, *e.g.*, a great book, is better than one readily recreated or renewed.

4. Consistency. A value that harmonizes with one's total system of beliefs is superior to values in conflict.

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[1] John Dewey. *Problems of Men*. New York: Philosophical Library, 1946. p. 51.

[2] Walter Lippman. *The Public Philosophy*. Boston, Massachusetts: Little, Brown and Company, 1955. p. 178. Copyright 1955 by Walter Lippman.

5. Cognitive completeness. A value that is based on full information and broad experience is higher than one based on fragmental knowledge.

6. Survival. A value that makes for the survival of the individual—and the human race—takes priority over dysfunctional values.[8]

If it be held that any such scheme applies to individuals, rather than to "society," we must ask what is society except persons in association, a patterned life within a given culture? Further, if it be said that interests may clash in spite of such a scale, we must admit the point and then accent the regulatory function of the state, the final (until changed) definition of the public good. There is, in sum, no ducking the supremacy of majority rule in a democracy, with full and absolute protection of minority rights.

No Decision Is Decision

Here account should be taken of a blind spot in much civic education, often a fatal oversight. It has been said that values imply choices, thus commit one to a course of action. Wrong decision is, to be sure, an ever present danger, yet an even greater risk may be no decision at all. This principle finds tragic illustration in the American experience.

Years ago, in teaching history to school seniors, we tried to let them see that the Civil War was a needless war, that this desperate struggle could have been avoided by reasonable discussion and compromise. Some scholars, then, and more since, have taken this position; for instance, Bruce Catton in recent articles for the Associated Press.

It will be recalled that Lincoln's election in 1860 led to the secession of several southern states, an act which was more of a political gesture than a warlike move. Northern reaction was immediate, defiant and belligerent, the effect being to evoke the same reactions in the South. Thus the issue was changed, as Catton observes, from that of slavery, over which neither side was ready to fight, to that of union, about which many people would fight. As the tension mounted, some attempts were made to resolve differences but they failed because neither side was willing to negotiate.

At this juncture, the question of war or peace was delegated for decision to what, in retrospect, was a fantastic degree. A federal army major in command at Fort Moultrie was instructed by Washington to keep the peace; but if, in his judgment, the Southern forces were menacing, he was to move his soldiers over to nearby Fort Sumter in Charleston Harbor, a more defensible post. Anticipating this action, South Carolina authorities armed a steamboat and set it on patrol. The militia captain in charge was told to prevent Northern troops from occupying Sumter, using force if in his judgment that was necessary. Thus, as the year ended, the power to commit the nation to war came to rest on the perceptions of two obscure military officers.

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[8] George W. Hartmann. "Pacifism and Its Opponents in Light of Value Theory." *Journal of Abnormal and Social Psychology* 36: 151-74; 1941. p. 164.

First, a speculation, then a conclusion. Is there something quite familiar about the Civil War dilemma? Is there now, here and there about the world, a captain, major, private who can start nuclear war? If, by accident or design, a signal is misread, a message scrambled, a missile fired, will the holocaust be on? Thus the risks of on-the-spot decision are very great. Are there, *per contra,* sane ways of ending the insane arms race? Can the world organize for its own survival? If not, there is no use to talk about citizen education; there is no use to talk at all.

Catton puts the conclusion very well:

> The point of this is that when we fail to cope with a problem we do not necessarily dispose of it; we simply decree that the answer to it will be made by somebody else. In 1861 the people of America were plunged into their costliest war because they and their leaders had refused to try to find an answer to the most momentous problem that they faced. Events themselves forced an answer, and it was fearfully expensive when at last it was made.

From Studies of Delinquency

One can learn much about good citizenship by studying bad citizens. A case in point is the delinquent or near delinquent boy or girl in and around the school, especially in urban slum areas.

A writer on this topic starts with a strike on him. Each new batch of crime statistics is like the hum of traffic outside the window; it leaves one cold, uninterested. After all, are not higher arrest rates a sign of progress, like air sickness, ulcers and insanity? Moreover, who understands the causes of delinquency? Not parents, not civic leaders, not educators. Why bother then, ask that we think again? The answer is that troubled youth cannot be put out of mind, given up, or let go.

Causes and Cures: No Easy Answer

One is tempted to say forthwith that everything has been given as a cause of juvenile misconduct and, as for "cures," they too have been beyond count. So far as known, no kind of unlawful action is inborn, a product of heredity. While low IQ's, physical handicaps, and emotional instability may be predisposing factors, many such youth are not delinquent and, on the other hand, many delinquents are not so disadvantaged. Much the same holds for broken homes, lack of schooling, extreme poverty, high mobility, low class culture, and other sociological variables.

Clearly, misconduct is learned and, if so, it can be concluded that the young are socialized into antisociality. The critical point is to account for their induction into the subculture of "delinquency," for it is here that youth acquire—and perfect—their delinquent imagery and roles.

Shaw [4] found, in studies in Chicago, that CVD (crime, vice, delinquency) rates were highest in slum areas and persisted with little change in spite of major area changes such as in population. He spoke of a "crime tradition" and proved that it was passed along. Hardened criminals taught beginners, in part by use of street gangs. On the face of it, such learning and teaching imply fairly stable contacts over time, a lead that Shaw did not follow. Slum areas were viewed as "disorganized," hence unable to exert lawful, community control.

It was Sutherland [5] who shed more light on this situation. The delinquent group was disorganized only from an outside, moral point of view; it was well organized, by and large, to practice its own norms. Stated broadly, slum culture tended to polarize about two value systems—the one criminal, the other conventional. Various writers have supported this finding in showing that CVD persons in slum areas are not, as a rule, social isolates. These persons are related to one another and to business, politics and power in such ways as to organize the place, to provide the kind of milieu the individuals require.

Thinking along these lines, Sutherland devised the present leading theory of CVD behaviors. He postulated a universe of potential delinquents, then asked why some youth went bad and others did not. His answer was in terms of "differential identification," response, or association. While this principle was descriptive, it was not predictive, hence was not adequate. The need then and now is for a testable hypothesis of youth motivation, such as recent studies of self and role appear to suggest.

Conception of Self and Others

After a searching study of good boys and bad, one team of sociologists concluded:

> Conception of self and of others is the differential response component that helps to explain why some boys succumb and others do not, why some gravitate toward socially unacceptable patterns of behavior and others veer away from them.[6]

The picture emerging from cumulative self and role studies is about as follows: Delinquent boys, notably lower class boys, are very ambivalent in their feelings about themselves, their present and future. Living in conflicting cultures, they respond to both and learn from both. In particular, they want status and they seek it among middle class peers at school and outside. On being rebuffed, repeatedly rebuffed, these potential maladjusts react, not only against their better-off age mates, but also against their own status aspirations. As this self crisis deepens, they are led to types of behavior—for instance, a senseless kind of savagery—that would otherwise be unintelligible to an observer. Lower class girls show much the same career pattern, with heavy stress on sex roles. The "corner gang" is a powerful, omnipresent influence, one with which schools find it almost impossible to cope.[7]

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[4] Clifford Shaw and H. D. McKay. *Delinquency Areas*. Chicago, Illinois: University of Chicago Press, 1940.

[5] Albert Cohen, *et al. The Sutherland Papers*. Bloomington, Indiana: Indiana University Press, 1956. p. 31 ff.

[6] Walter Reckless, *et al.* "The Self Component in Potential Delinquency and Potential Non-Delinquency." *American Sociological Review* 22: 566-70; 1957. p. 570.

One wonders what might have happened, how the work would have gone, if any of the grandly wasteful large-scale projects in citizenship education, such as the well-financed Detroit Study (1945-50), had made some such approach to delinquency prevention and control. Consider, in outline, an overall plan of attack. Obvious aims in such a project would be to identify youngsters in need of help and to provide help. This is in part a job for the schools (school system), in part for homes and area agencies, *for only the total community acting in concert can hope to achieve much.*

The task is to provide a healthy climate, a good milieu, for all children, and to give continuing guidance and support to many or a few. Thus, a program exacts a price, but unless adults care enough to pay it, the job of building better citizens is nothing but talk.

The approach to young people should be a "loving-thinking" orientation, as Johnson[8] conceives it throughout his book. A teacher might say to herself: "These are my children, and I need to know about them—what they do, how they feel, what excites or depresses them; for my task is to involve each one in his own becoming." Toughies in a group may hold that "teacher is teched" or "soft, man, soft" or simply "a square." They may try to run the teacher out of school, which was Rick's experience in a tale that bears reading.[9] Sooner or later, a break will come, if one is perceptive enough to see it. It can be seen in these lines by a 4B Negro girl, assigned to do a theme on her neighborhood.

> I sure think this neighbor mens chase girls to much becase you can't go out into streets at night. Becase like I said, some dirty rat will grab you and

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[7] Lloyd Cook and Elaine Cook. "Street Gangs and Delinquency." *A Sociological Approach to Education*, Chapter 12. New York: McGraw-Hill Book Company. Copyright 1960.

[8] Earl S. Johnson. *Theory and Practice of the Social Studies*. New York: Macmillan Company, 1956.

[9] Evan Hunter. *The Blackboard Jungle*. New York: Simon and Schuster Company, 1955.

feel you all over . . . And you can't go to resterant where is whites who say, no, not allow you. And you can't find no decent job at work for pay. . . .

I think this we, the people, should complain on. These here houses and homes are dirty broke down. They is full of bugs and all kinds vermin. Not fit for us children to live in. And the streets is bars and stuff, drunks fighten, like that. . . . Mens I see using trees just like dogs.

What I think is we got to clean up this place some. These peoples unfit to live in the U.S.A. but fit to live in Russia. . . ."[10]

Bid for Realistic Education

There is, we believe, hope here, the hope of desperation. Such self reports have been blessed events in our teaching experience, a bid for realistic citizen education.

To provide a decent schooling for every child—an attractive school, a full day at school, small classes, good tools and materials, warm lunches as needed, a teacher sensitive to pupil backgrounds and feelings, knowledgeable about the young in their growth processes, well disciplined in subject matter, backed by an intelligent and courageous administrator—these are the biggest steps the nation's schools can take in any kind of education, including the development of present and future citizens. This can be done and should be done at public expense, including federal aid where that is needed.

Beyond these imperatives for all children and youth, there is much to do in effective civic education. Delinquency control should begin as far upstream as possible, aims being to identify the "delinquent prone," to find and alter causative factors. Teachers, parents and others can participate in this, for it is not a highly technical job. At the next level, a community must somehow deal with its hard core cases, the difficult-to-reach habitual delinquents. The focus should be on personality *in situ*, self and role concepts, in sum the dynamics of youth socialization. This is the place for the experts, the specialists, working in cooperation with parents and the community.

Four cautions come to mind. No one or few factors make it possible to predict beyond chance the potential delinquent, the sleeper case, the late bloomer. "It is the degree of saturation and the interrelation of factors," as noted in a recent summary of research, "that will enable an observer to identify the most vulnerable youngsters."[11] Next, the further upstream inquiry goes, the more uncertain its predictions, yet the more promising a course of treatment is likely to be. Third, to call a child a delinquent is often to utter a self-fulfilling prophecy. The individual begins to act like a hoodlum and, presently, he is one. Finally, slum children in particular live on the streets, grow with the streets, change as streets alter, and exceptions do not disprove the general rule. This would seem to call for some type of group-oriented program.

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[10] Lloyd Cook and Elaine Cook, *op. cit.*, p. 253-54.

[11] W. C. Kvaraceus and W. B. Miller. *Delinquent Behavior: Culture and the Individual.* Juvenile Delinquency Project. Washington, D. C.: National Education Association, 1959.

Analysis of Community Power System

If our years in field work with communities justify any sweeping conclusion, it is that as any group becomes active in a change project, it is bound to encounter the local power system. It behooves all educators, in any sort of school-area planning, to study power, to learn to live with power and, above all, to use power to further the public interest in the education of youth.

To understand power, it is helpful to begin with a simpler unit than a whole community. For instance, a school head has power, for he can, with board sanction, hire and fire teachers. His power is delegated, adhering in the main to his office, yet it must not be confused with office holding. A person may be authorized to act but lack the power to make his action stick. Authority is not power, nor is influence, affluence or prestige. Power is latent force, a set of compulsions which can be applied to secure a given end. In everyday community affairs, power is a way of compelling wanted decisions.

So viewed, power is as natural as rain, though nowise as impersonal. It is linked to values in the sense that power persons do not merely do their duty; they determine what their duties are.

The best community power study is that by Hunter.[12] After compiling a list of local leaders in a middle-sized American city, he discovered by interviews who the key policy makers were, the few top men in decision making as this affected civic action on civic matters, then the lesser leaders on down the line. Sociographic charts were made to show the interactions of these power holders. Using specific examples of action projects, he talked with men about their individual roles in change programs. their leadership activities. His chief finding was that a local power system did exist, that power centered in a small top group, mainly big business men. These persons were well acquainted, well informed on community affairs, and accustomed to work together.

From perhaps a score of local studies, it can be said that the top power group in any average community is small, maybe five to ten members. Size is due mostly to the fact that interactions must be intimate, dealings confidential. These persons seldom hold office; they work through the office holders. They appear to fear major changes in community life, and they oppose radical shifts in the balance of power. Further, many questions of public policy never get acted upon because of lack of time. The situation is like the plight of a school head who, unwilling to delegate responsibility, lets his "paper work" pile up.

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[12] Floyd Hunter. *Community Power Structure.* Chapel Hill, North Carolina: University of North Carolina Press, 1953.

Floyd Hunter. *Top Leadership, U. S. A.* Chapel Hill, North Carolina: University of North Carolina Press, 1959.

Mills[13] studied power at the national level, making observations he felt to be reliable. Focus was on the "power elite," individuals who held "command posts" in leading sectors of American life. Basic to the author's thesis is the way the nation has evolved:

> The economy—once a great scatter of small productive units in autonomous balance—has become dominated by two or three hundred giant corporations, administratively and politically interrelated, which together hold the keys to economic decision.
>
> The political order, once a decentralized set of several dozen states with a weak spinal cord, has become a centralized, executive establishment which has taken unto itself many powers previously scattered and enters into each and every cranny of the social structure.
>
> The military order, once a slim establishment in a context of distrust fed by state militia, has become the largest and most expensive feature of government, and, although well versed in amicable public relations, now has all the grim and clumsy efficiency of a sprawling bureaucratic domain.[14]

Mills locates the national power elite within this context. First, the "big rich," the giant corporations; next, the top politicians, recruited in the main from big business and the military; and third, generals and admirals who have come lately to great power, due to nuclear war or threat of war. These are the power holders, Mills concludes, who "dominate" national life. The author is disturbed by the growing tendency of fields to overlap and with the interchangeability of leader roles. Men move rapidly from one top post to another, say, from business or military to government. While the author questions no one's integrity, the system is found to be undemocratic since it does not rest on the knowledge or consent of the governed.

Any set of power facts is likely to center the attention of citizenship educators on their professional role. The aim at all levels of community life should be the better use of power, its democratic use for democratic ends. In line with this goal, power should be institutionalized, that is, made known, open and accountable to the public. The balance of power, the idea of control of power by power, should be strengthened, for the play of group on group *within the law*, the push and haul of contending interests, is characteristic of democracy.

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[13] C. Wright Mills. *The Power Elite*. New York: Oxford University Press, 1956.

[14] C. Wright Mills. *Problems of Power in American Democracy*. Arthur Kornhauser, editor. Detroit, Michigan: Wayne State University Press, 1957. p. 158.

To argue any of these points with power persons, or to defend a joint school-community program against the onslaught of power, will most surely come a cropper unless the case can be buttressed by facts. Further, it behooves the educator to put his own house in order, to manage better the use of power in the schools and in classrooms. Children learn more in these matters by what happens to them than by what they are told.

Mass Media Studies and Citizen Behavior

The ubiquity of mass media, their recency, speed, and ease of access, are matters of record. Aliens from other lands are shocked by these "lively arts," the "taste makers" and "hidden persuaders." Children born to them, reared with (if not by) them, take them for granted, as much a natural right as baseball and hot dogs. It is safe to say that many youngsters spend more time under the influence of such media than they do at school.

As each new agency of mass impression has appeared, it has raised anew the question of intermedia relations. A newspaper, to illustrate, is published to sell and, as sales increase, the take from advertisements mounts. To make maximum sales, the paper must interest nonreaders. It must also win readers from other papers, even from other mass media. Thus, growth is competitive, and, as production costs rise, the break-even point rises. The medium's offerings become more varied and the common denominator is lowered until, in theory, everyone is involved. What happens to competitors, for example, in displacement, is not well known in a research sense. Were the facts clear, we would understand why the present press, radio, television, etc., is what it is. The current form is the surviving form, the ruling criterion being the "take" at the box office.

Studies of mass media, long a favorite of social psychologists, continue to pour forth. As one reflects on these, he may come to ask whether anything much of substance has been found since Aristotle's time. In his *Rhetoric,* Aristotle wrote:

> Since rhetoric exists to affect the giving of decisions . . . the orator must not only try to make the argument of his speech demonstrative and worthy of belief; he must also make his own character look right and put his hearers, who are to decide, in the right frame of mind.

Many Problems To Be Considered

Asked what he had seen at a movie, a small lad replied "ever'thing." What people see, hear or read is, in general, what they want to attend to at or below the level of consciousness. Studies show loss of over half the content in tested messages, along with a number of influences which block or modify intended effects. Work on rumor in particular has uncovered processes widely applicable.[15] One is "leveling," the omission of objectionable facts; another is "sharpening," the accenting of certain facts; and a third is "assimilation," the meaning given facts within personal frames of reference.

Studies of television content have long caused parents and educators genuine alarm. In speaking to some 2000 broadcasters in May 1961, N. N. Minow, Chairman of the Federal Communications Commission, described television's program output as a "vast wasteland." As quoted in the press, he invited station operators to view their own offerings for a day, then stated:

> You will see a procession of game shows, violence, audience participation events, formula comedies about totally unbelievable families, blood and thunder, mayhem, sadism, murder, western bad men, western good men, private eyes, gangsters, more violence, and cartoons. And endlessly, commercials—many screaming, cajoling, or offending. And most of all, boredom. True, you will see a few things you enjoy, but they will be very, very few.

Whatever one can learn about mass media, their uses and effects, bears directly on the development of citizens. At times crusades are launched against this or that agency but results are seldom impressive. All too often the good is swept up with the bad, the informative or entertaining with the absurd. While we do not condemn censorship, for that is a citizen's right, the risk is that the idiosyncratic tastes of the most outraged person will become the measure of the common good, the public interest.

In all of this, the educator's task is, we suppose, to educate. There are fine movies and poor ones, vicious comics and amusing ones, appealing TV shows and revolting ones, informative books and time-wasters. Our plea is to teach discrimination or, better phrased, it is *to teach intelligent appreciation*.

We can well recall a favorite professor who held firmly the view that the prime test of a good citizen is "the ability to read and to understand the day's news."

Our guess is that illusions are good for the young if illusions help them to grow up. Small fry at times seek and need a world of their own, perhaps a sinful world, where they can escape adult prodding. A child may want to fly and try to fly whether or not he has heard of Peter Pan or Superman. The right to imagine, to try out, is precious to him, hence to the world. Fantasy cannot swallow up a healthy, growing child for very long and, as for his opposite, the treatment required goes beyond the reaches of citizen training.

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[15] Gordon W. Allport and Leo Postman. *The Psychology of Rumor*. New York: Holt, Rinehart and Winston, Inc., 1947.

One issue in respect to news media has pressing relevance in modern life, "cold wars" being as they are. The problem is not new; it faced George Washington many years ago. In May 1777, he wrote the Congress: "It is much to be wished that our printers were more discrete in many of their publications. We see in almost every paper accounts transmitted to the enemy of an injurious nature."

President Kennedy has spoken often about the need for discretion in news accounts. He has said that government moves are publicized whereas those of enemies are concealed, thus this nation is at a disadvantage. What is proper perspective, a balanced view on any national or international issue, is hard to say.

What, now, is one to teach about freedom of the press? If our press is asked not to publish facts about hot and cold war operations while they are going on, news media have in the past made vigorous protest. There is no severe libel law or security act, or Official Secrets Act, as in Great Britian, to restrain them. The American tradition is to "publish and be damned," the rationale being—in Reston's words in *The New York Times*—"the truth that makes men free is very often the truth they do not like to hear and also the truth the government does not like to see published." On the other hand, we are no longer a small and isolated country; we are the leader of the free world in its fight against communism. All in all, it is imperative that news media learn restraint and so also should our government in its press handouts.

Groups as Change Agents: Relevant Insights

If, as already said, learnings are more apt to affect action when taught in relation to action, it would follow that small groups are a primary means of citizen education. The teaching art is to make the group its own educator, to use the group to motivate, guide and control its members in terms of the greatest good for all. This is, be it noted, a far cry from holding hands or playing games with children.

Study of Small Groups

There is no quick way to orient one's self to the cumulative research on which group teaching at its best appears to rest. A start in reading might be made with the experimental studies of Lewin[16] and others on group atmospheres and leadership, followed by Moreno's[17] work in sociographic charting. Mayo's [18] studies at Western Electric on "the human problems of management" are instructive, as is Bales' [19] "interaction process analysis." The tug of war set going by Sherif[20] under controls between groups of boys at a summer camp can be applied with very little change to adult community factions at loggerheads.

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[16] Kurt Lewin, *et al.* "Patterns of Aggressive Behavior in Experimentally Created 'Social Climates'." *Journal of Social Psychology* 10: 271-99; 1939.

[17] J. L. Moreno. *Who Shall Survive?* Revised edition. Boston, Massachusetts: Beacon Press, 1953.

What occurs when a small discussion group settles down to problem solving? What changes arise in its processes and structure? What happens to members, what kinds of leaders emerge? To take the latter question, two types of leaders have been defined in research. One is concerned with the work job to be done, the other with human relations. Bales is informative on this point.

> The group member who gets his speech in first begins to build a reputation. His success at this leads him to repeat the technique, and the result is that discussants tend to assume rank order by task ability. In some problem-solving groups, members reach a high degree of consensus on ranking "the person who has the best ideas." Usually the person so ranked did most of the talking and had a higher than average rate of giving suggestions and advancing opinions.
>
> While one person is becoming a specialist in ideas, another is likely to develop a specialization on the reactive side. The group member rated as "best liked" has a higher than average rate of showing tension release, such as smiling and laughing, and of showing agreement. It is not impossible for the "idea man" also to be best liked, but apparently this double role is hard to play. In one set of group sessions, the top idea man, at the end of the first meeting, had about an even chance of being best liked. At the end of the fourth meeting, his chances were about one in ten.[21]

Task leaders and social leaders are probably found in all manner of human organizations, the one pulling to get on with business, the other concerned with people; and for one person to take both roles obviously is difficult. This holds, we are certain, for democratic classrooms, so that the teacher-leader is put on the spot.

Bales worked with motivated groups, *i.e.*, college students, as have the great majority of experimenters. A more typical profile of what the mass of citizens is like comes from industrial sociologists in their studies of large, bureaucratic organizations. Argyris,[22] for example, in an inquiry not without faults, found that, as one went down the pyramidal structure in a big factory, personnel at or near the bottom used few of their talents to solve plantwide problems or even to advance themselves when they were given full and fair opportunities. Jobs appeared to have no meaning except in monetary terms, and worker apathy was rampant.

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[18] F. J. Roethlisberger and W. J. Dickson. *Management and the Worker*. Cambridge, Massachusetts: Harvard University Press, 1939.

[19] Robert F. Bales. *Interaction Process Analysis*. Reading, Massachusetts: Addison-Wesley Company, 1950.

[20] M. Sherif and C. Sherif. *Groups in Harmony and in Tension*. New York: Harper and Brothers, 1953.

[21] Robert F. Bales. "How People Interact in Conferences." *Scientific American* 192: 18, 31-35; March 1955. p. 33.

[22] Chris Argyris. *Personality and Organization*. New York: Harper and Brothers, 1957.

Insofar as we have come to live in a meaningless world, a world of hurried and impersonal contacts, human relations can scarcely be satisfying to the great majority of persons. People drift into aloneness, despair and rulelessness. Feelings of self confidence and worth are low, and dodging civic (or other) issues is chronic. Worse still, as *der Angst* increases, persons become alienated from their inner selves,[23] a general condition known as anomia. Such citizens are a long sea mile from Lippman's far-seeing, clear-thinking, right-acting individual, the classical portrait of the good citizen.

Search for Principles of Groups as Change Agents

Let us turn from this all too dreary picture. If a teacher-leader elects to use groups as agents of purposive change, what principles are there to guide the operation? Cartwright sums up findings from a wide range of empirical inquiries:

1. If the group is to be used effectively as a medium of change, those persons who are to be changed and those who are to exert influence, must have a strong sense of belonging in the group.

2. The more attractive a group is to its members, the greater the influence it can exert on members.

3. In attempts to change attitudes, values, and behaviors, the more relevant these elements are to basis of attraction in the group, the greater the influence the group can exercise.

4. The greater the prestige of a group member, the greater the influence he can have.

5. Efforts to change persons in a group which, if successful, would lead them to deviate from group norms, will meet with strong resistance.

6. Strong pressures against changes in a group can be offset by creating a shared perception on the part of group members of the need for change, thus locating the stimulus for action within the group.

7. Information relating to the need for change, plans for, and consequences of change should be shared in the group.

8. Changes in one part of the group produce strains in related parts which can be reduced or removed by readjusting those parts.[24]

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[23] For example: Erich Fromm. *The Sane Society*. New York: Holt, Rinehart and Winston, Inc., 1955.

[24] Adapted from Dorwin Cartwright. *Toward Better Human Relations*. L. A. Cook, editor. Detroit, Michigan: Wayne State University Press, 1952. p. 84-90. For cases and efforts at solution, see: L. A. Cook. *School Problems in Human Relations*. New York: McGraw-Hill Publishing Company, 1957.

These are simple rules, readily observable. They are possibly more helpful to educators than are complex, highly qualified generalizations. The first need is to make one's self a student of groups in action, groups as such, not the chance massing of uninvolved individuals. Insight will come, and skills will develop, as they do in any line of serious inquiry.

Consensus vs. Majority Rule: The Issue

One question that puzzles many group workers is the issue of consensus vs. majority rule. Some writers on dynamics view the former as more democratic, as Kerlinger indicates:

> The tendency seems to be to emphasize the desirability of consensus in the decision-making process. Little or nothing is said about majority rule . . . but the impression is that it is not somehow or other in keeping with the democratic scene. Decisions reached by consensus, it is assumed, are the "right" decisions, those particularly suited to American democracy.[25]

Kerlinger argues that consensus is really authoritarian, that is, it is "less democratic" than is majority rule under parliamentary law.

> In practice it [consensus] leads to a subtle yet definite squelching of the opinions and wishes of many members of the group. The weight of group pressure is brought to bear, consciously or unconsciously, on group members so that they feel they should agree in ultimate decisions. Comments, suggestions, and opinions are invited, and it is true that this is democratic, but the final step before action is taken . . . is governed by "consensus shouldness," a tacit assumption that everyone should agree with the group will.[26]

The consensus system assumes, as a rule, complete accord within a group *after* full discussion, an assumption that tends to become compulsive as the group moves toward final decision. By acts well known to readers, rebels and dissenters are given to understand that they are being bad sports, that they ought to be reasonable, that they are one or a few against many. Thus the democratic right of taking issue with a majority without punishment is denied. Of course, a disagreer is free to leave the group, to forfeit membership, but if he stays he is subjected to group control.

On majority rule Kerlinger writes:

> The fact that individuals differ—and always will differ on important issues—is the assumption behind majority rule. A second assumption is that the majority, while often misguided, will decide wisely in the long run, providing there is freedom of expression and action in the process of decision making. . . . Individuals who differ from the majority decision will go along with it, and, if they see fit, will work to change it.[27]

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[25] Fred D. Kerlinger. "The Authoritarianism of Group Dynamics." *Progressive Education* 31: 169-73; 1954. p. 169 ff.

[26] *Ibid.*, p. 171.

[27] *Ibid.*

What, now, is to be decided? Where does the truth lie? The author quoted makes much of the punishments meted out to dissenters in the consensus system, plus the improbability that all free persons will, finally, agree. While both of these points are important, it strikes us that neither is conclusive on the matter at issue. In every group, there are pressures to conform to group norms, pressures a skilled leader can use to manipulate individuals. The leader can learn, to put it again, to manage group action by democratic means for democratic ends. Moreover, in almost all groups, bargaining goes on, compromises are made. These are the commonplaces of group life.

It seems to us that the big difference in the two systems of problem solving lies in the view as to how change action can be made more representative, and even more intelligent. In the parliamentary scheme, a minority can stay by its guns and, as a responsible opposition, continue the fight. It can do this, in theory, with no loss of face, no guilt feelings, for the practice is legitimate; it has cultural sanction. In the consensus scheme, a minority has no such position, hence no protected status in its dissent. It must settle, in theory, for less than it wants or believes in if it is to have a part in the final decision of the group.

We have seen no thought about either system which takes account of what Mary Follett called *creative bargaining,* "the type of interaction which creates new values." [28] She does not mean compromise, for "neither party gives up what that side really wants." In the process of give-and-take discussion, each side searches for a way to realize the *sine qua non* that both sides hold. A case would be a labor union which seeks wage increases that management refuses to grant. Settlement might be made in terms of fringe benefits, a better pension plan, fewer layoffs, or something else that the union wants.

Teaching Values: Some Lessons

To speak again from experience, we have never found in working with people any substitute for open, honest dealing in controverted matters, for reasonableness, and for respect toward persons who differ. No structure of decision making, no pattern of mechanics, can come to much unless it is founded on these and other moral virtues. Where rascals have made themselves known, we have treated them as rascals, at least not let them hold up group action. Our view is that good men tend to make good systems, ungood men the reverse.

Having said so much about values, it may not be wise to speak further on the same theme. And yet, there is nothing more important in the development of good citizens, nothing so crucial. Unfortunately, there is in some recent studies a strong implication that values, while learned, cannot be taught (or well taught) in formal education. If this were indeed a proven fact, it might well shake the foundations of public schooling.

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[28] H. C. Metcalf and L. Urwick, editors. *Dynamic Administration: The Collected Papers of Mary Parker Follett.* New York: Harper and Brothers, 1942. p. 32.

The best data are at the college level, specifically the Jacobs[29] report. This is a critical review, a study of 354 studies that dealt with changes in students' values while at college. The author presents a profile of these values as seen in research, then discusses the profile in terms of college instruction, influence of the curriculum, impact of the professor, different teaching methods, and the "peculiar potency" of some small colleges in affecting students. The volume concludes with a chapter on student personality.

Jacobs' major finding is that the basic values of students remain very constant through the college years. "The changes which have been observed . . . are mainly changes on the surface of personality. They do not really involve the fundamental values which shape a student's life pattern," and hence, if we may add a word, his adult citizenship responsibilities. "The report," Riesman[30] comments, "regards three quarters of them [students] as out for the main chance, lacking any sense of solidarity or community, tolerant of others out of flexibility rather than of high principles . . . all too well prepared as future organization men (and their wives)."

Jacobs does not account for the "peculiar potency" of some colleges, such as Harvard, Antioch, and Reed, in affecting student values in the sense of exerting "a liberalizing impact." The report, for all of its worth, suffers from its imprecision at critical points, due chiefly to its *omnimum gatherum* nature.

Lazarsfeld[31] speculates on how effective "value research" might be done. Young people, with prestudied personalities, would be assigned at random to types of colleges, then further assigned to fields of study and instructional methods. Matched control groups, youth who did not go to college, would be set up and studied. "Thus we might be able to say," the author writes, "what changes are due to simple maturation and progress into adult social roles, and what changes are due to college attendance," and to kinds of colleges and aspects of a college.

To return to the Jacobs study, the overall finding cannot, we believe, be called proved, yet our own hunch is that much of it may be true. At least, an hypothesis has been set up which demands further, exact proof. All things considered, it is not easy to see how a faculty can discharge its obligations to students, to the professions for which it prepares, and to the nation at large unless it makes a more reflective effort than, on the average, is now given to solving the problem of student value changes while at school.

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[29] Philip E. Jacobs. *Changing Values in College: An Exploratory Study of the Impact of College*. New York: Harper and Brothers, 1957.

[30] David Riesman. "The 'Jacobs Report.'" *American Sociological Review* 23: 732-38; 1958. p. 733.

[31] Paul F. Lazarsfeld. "Foreword." A. H. Burton. *Studying the Effects of College Education*. New Haven, Connecticut: Hazen Foundation, 1959.

In Conclusion

We have strayed far from what passes today as education for citizenship in and out of schools. The aim has been to broaden and deepen thought on the subject, to relate the development of citizens to conditions that count in the conduct of people, and thus in the life of the nation. If the issues are complex, if their solution does not lie in plain sight, then the citizenship educator faces a dilemma common to every field of knowledge. He will have to try to learn more, to reflect more, thus to improve his ideas and practices.

The value-choice nexus, stressed in this chapter, may seem strange to persons outside the American tradition, and, mistakenly, may be read as a sign of weakness in our life. To these persons it must be said that freedom of choice, the necessity of choosing, is central in the nation's long history. The United States was founded in liberty, with people from all over invited to come, to settle and to build. At the same time, a second great truth was recognized, the need to bind people together into a commonweal, a united citizenry. Out of these foundations has come the question of how much freedom, how much unity, a squeeze that seems to deepen all the time. While this causes concern, it is hard to imagine that any good citizen would welcome any other social system.

Often over the years, we have pondered the participation of citizens in voluntary civic organizations such as boards, agencies, community clubs, churches, and so on, the time and thought and energy expended on them. Why, *why do they do it?* If one asks citizens, they will speak of the satisfactions they find in this form of social service. While these inner feelings are no doubt basic, they are not without external counterpart.

Kaltenbach and McClelland, in their study of three small towns,[32] made an interesting discovery. In each place, they secured by interviewing a cross-sectional sample of persons the names of individuals who were judged to be the "most successful" members of the community. The next step was to have each sample rate each list as to degree of success until a rank order was established. These "achievers" were then studied in terms of measurable factors, such as jobs, education and income, and also in terms of less objective variables, notably personality, character and "service to others."

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[32] J. E. Kaltenbach and D. C. McClelland. "Achievement and Social Status in Three Small Communities." *Talent and Society*. New York: D. Van Nostrand Company, 1958.

"Our conclusion," the authors state, "is that community activity by itself, irrespective of all other factors, is the best index of perceived achievement." What is indicated is that adults rate adults not by where they were born or who they are or what they work at but more by what they do to keep the community going, to further the public good.

We consider this an encouraging finding. It might lead citizen educators to greater community participation, a desirable gain from our standpoint. More, it suggests that the services of lay and professional persons in civic activities do not go unrewarded. On the contrary, they build reputation and hence, by inference, they must affect character.

Chapter 12

A Curriculum for Citizenship Education

Victor B. Lawhead

PREPARATION for citizenship is probably one of the oldest of educational aims. It takes on new meaning as concepts of community enlarge and as education, being an instrument of social change, brings fresh insights to bear on the elusive relationship of the individual to his society.

Two Major Values of Our Society

Of the central values that describe the democratic way of life and give character to the citizen's educational needs, few if any have greater priority than respect for individuality and respect for associated sharing. That modern educators have discerned no necessary dichotomy in the relationship of the citizen's private autonomy and his social experience may be seen in the following statement:

> These two ideals, respect for human personality and participation, are reciprocal in character. The more we respect human personality, the greater will be our concern for organizing our social institutions to promote its development, and the more we share in the common life, the greater will be the enhancement of the individual.[1]

Defined further, while respect for human personality implies its fullest development in terms of particular potentialities and needs, it also recognizes that maximum opportunity to develop one's capacities must be achieved in a context of the consequences of such development upon others. Because educators must draw heavily upon two main currents of humanistic and social thought to develop a workable concept of citizenship, the sources of contributing ideals may need further examination at this point.

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[1] Harold Alberty. "Progressive Education: Its Philosophy and Challenge." *Progressive Education* 18: 1-32; May 1941. p. 7.

Education for Individuality

"Man is the measure of all things," wrote the Greek philosopher Protagoras. The essential implication of placing man at the center of reality is to accord him the responsibility of determining that reality. Thus he becomes the evaluator of experience in accordance with his particular individuality. It seems essential to a concept of citizenship to note the social relevance with which human capacities for self-determination are interpreted. Thus, in describing further the dual orientation of the individual, toward autonomy on the one hand and toward a broader social identification on the other, Angyal comments as follows:

> In the first tendency we see him struggling for centrality in his world, trying to mold or organize the objects and events in his world—to bring them under his own jurisdiction in government. In the second tendency he seems rather subscribed to render himself willingly to seek a home for himself in and to become an organic part of something that he can see as greater than himself.[2]

We could say that the human being is both a unifier and an organizer of his immediate personal world and a participant in what he can see as the superordinate whole to which he belongs. The total function of personality is patterned according to a double orientation of self-determination and self-surrender.

Lois Murphy, in identifying the persistent emphases in children's capacities for self-management (Chapter 5), calls attention to these potentials for early citizenship education and insists on their dynamic relationship. Stressing first the child's capacity for independence, she notes the historical and cultural conditions that have reinforced an emphasis on autonomy.

Out of a Western humanism characterized by the method of free inquiry and by the treatment of differences with respect evolved the doctrine of individualism. The cultural conditions of the emerging American way of life gave additional meaning to this doctrine. To understand fully the impact of American culture on individualism as an educational value one needs to reflect historically upon the conditions leading to the development of the public school in this country.

In colonial New England, where it flourished most noticeably, popular education was conceived largely in a religious context that placed priority on individual salvation through knowing the word of God. Ability to read the Bible and to communicate in a verbal religious experience were worthy goals of a learning process that was considered primarily an individual affair. Out of these beginnings there emerged a pronounced emphasis upon "individual" learning of the basic skills; for, in a culture largely Protestant, where every man was "his own priest," ability to read the word of God was indeed paramount to salvation for the individual person of faith.

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[2] Andras Angyal. "A Theoretical Model for Personality Studies." Clark Moustakas, editor. *The Self. Explorations in Personal Growth.* New York: Harper & Row, Publishers, Inc., 1956. p. 44-45.

Citizenship education under these conditions was identical with religious instruction. "Since no line divided church and state," writes Thayer, "it was natural for church authorities to translate religious teachings into their implications for public and private conduct."[3] However, as America became increasingly characterized by plural cultures, the significance of individuality as a universal concern became a secular value independent from but indebted to the religious tradition of personal worth.

Another cultural factor, the land frontier, contributed to a heavy emphasis upon individualism as a dominant characteristic of American life. Like the abundance of free land open to the settler of sufficient mettle to use it, education during this period was looked upon as an available resource open to the individual who had the perseverance to be educated. In this relationship, frontier education became synonymous with training for success in life. Certain of the undesirable aspects of extreme individualism in education have their roots in this attitude that had developed in American frontiers of the eighteenth and nineteenth centuries.

Social Demands of Education

The growing criticism within education of the evils of overspecialization is but another aspect of the general apprehension about a doctrine of individualism irresponsibly interpreted. As Donham points out, "The very emphasis we put on individual freedom and initiative requires a widespread sense of responsibility in the use of freedom." He also reminds us that

> In stressing the intellect we have ignored human behavior and cooperation and the habits, skills, and background necessary to effective judgments. Yet these are as important to an orderly free society as unquestioning obedience is to a totalitarian society. They are far more difficult to accomplish.[4]

His analysis of the problem accents the need of interpreting individualism in the wider context of social responsibility.

Because education is life, it is not strange that many writers who have contributed heavily to the redirection of education have written of life itself, its meaning and interpretation. Long before the term "educational philosophy" entered the literature, men had attempted to analyze the social bases of living and had suggested for education the implications of their analyses. They were philosophers, historians, sociologists as well as educators. To Auguste Comte, Herbert Spencer, Lester Ward and others we are indebted for a basic orientation to the study of society.

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[3] V. T. Thayer. *The Role of the School in American Society*. New York: Dodd, Mead and Company, 1960. p. 38.

[4] Wallace B. Donham. *Education for Responsible Living*. Cambridge, Massachusetts: Harvard University Press, 1945.

However, it remained for John Dewey to point significantly to the mutually inclusive roles of school and society. At the turn of the century, he wrote optimistically of the vital responsibilities education could undertake for using the dominant values of the community in directing the growth of the learner. Of this responsibility, he wrote:

> Moreover, if the school is related as a whole to life as a whole, its various aims and ideals—culture, discipline, information, utility—cease to be variants, for one of which we must select one study and for another another. The growth of the child in the direction of social capacity and service, his larger and more vital union with life, becomes the unifying aim; and discipline, culture, and information fall into place as phases of his growth.[8]

Dewey's writings did more than call attention to the need for raising the shades of the classroom in order to relate education to life's experiences. He envisioned for education the role of cultivating human tendencies in the individual to the end that society will be progressively improved. That exaltation of the individual personality has high priority in democratic education is unmistakable. It is individualism as a method which bears refinement and reinterpretation in the light of continuous social change.

Areas in Which New Approaches Are Needed

The essential task of the school in citizenship education has been identified by Cook as that of educating for effective decision-making in areas of social relevance. Without a willingness and competence on the part of its citizens to deal effectively with the persistent issues that define living in a free society, we may justifiably conclude that the schools of that society have failed in their basic task of citizenship education. How can the school organize its resources and program to promote maximal competence for this responsibility? A look at current practices which serve as blocks to functional citizenship training and the possibilities in organizing the curriculum for overcoming these blocks may offer further clarification of the school's basic task in this problem.

If the schools are to deal realistically with the need for improved citizenship education, it will be necessary to restore in youth the sense of community with adult concerns which has been lacking in recent times. The teen-age culture, which Bernard[6] described as a product of an economy of affluence, has developed as a phenomenon of alienation of adolescents from the serious responsibilities of life, particularly of work. Feelings of anonymity and of not being needed have led naturally to a dependence on a contra-culture which, while not necessarily at odds with adult society, nevertheless provides a sense of identification through less mature pursuits and concerns. The school's task seems to be one of understanding developmental and cultural conditions responsible for the alienation of the young citizen from increased social responsibility and of building into educational programs those elements necessary to restore strong and significant bonds with the adult community.

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[8] John Dewey. *The School and Society.* Chicago, Illinois: University of Chicago Press, 1899. p. 107. Copyright 1899 by the University of Chicago.

A second major obstacle to engaging the young citizen in meaningful learning related to present and future responsibilities is the lack of flexibility in the standard curriculum particularly at the high school and college levels. The rigidity of the orderly 50-minute schedule and the neatly packaged bodies of subject matter apportioned to the school day offer little opportunity for the interested teacher to involve his students with civic problems which require multidisciplinary approaches and sufficient time to utilize community resources for learning. Although the significance for reorganizing instructional time for effective use of direct, firsthand experience has been the concern of thoughtful educators for many years, there is little evidence of effort on the current scene to bring about needed change. With the exception of core programs of general education, which are characterized by an integration of learning within a longer block of time, most proposals today tend to direct the curriculum toward more atomistic and fragmented patterns of organization.

Although Conant recommends a block of time in grades seven and eight, in which a student's classes in English and social studies would be staffed by the same teacher, his primary concern is one of transition from the self-contained classroom to the multiple-teacher program of the secondary school. His basic curricular recommendations imply rigid departmentalization. Educational television, which has the potential for programming viewing experiences of interdisciplinary scope, has not capitalized on this possibility to any great extent. The schedule of courses broadcast by the Midwest Program on Airborne Television Instruction, if indicative of patterns in this field, suggests that further fragmentation of the curriculum will be encouraged not only in the high school but in the elementary school as well.

A further block to civic education may be seen in the fact that the school, as an agency that engages children and youth for much of their time, often fails to develop any real sense of community. Dependence on spectator sports and other superficial claims for personal loyalty rather than on vital involvement in the maintenance, government and welfare of the school deprives the young of valuable opportunities to learn gradually human concerns and responsibilities. The increased size of the school populations probably makes such involvements even more difficult.

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[6] Jesse Bernard. "Teen-Age Culture: An Overview." *Annals of the American Academy of Political and Social Sciences* 338: 1-12; 1961.

Sensing the sterility of many academic experiences in respect to current social issues, students often seek more direct participation and relevance in the welter of extracurricular activities. This so-called "second" curriculum, despite its recognized superficiality at points, offers the high school student in many cases the only available contacts with adult life in the community. One of the keys to improved citizenship training might be found by fusing the basic curriculum content with experience having roots in the affairs of the immediate and wider community.

New Information and Problem Areas

Delinquency, community power structure, and the mass communications have been identified by Cook as distinctive areas which the schools must treat with new information under changed conditions. The responsible role of the curriculum builder in fostering those conditions necessary for dealing with priority content is measured in his ability to conceive novel patterns of organization and instructional procedure which are effective in the new situation. What are the implications of using selected problem areas as the organizing points for new knowledge from the social and behavioral disciplines? What new possibilities emerge for ensuring interaction and continuity of educative experiences in the classroom? How shall the teacher develop the basic tools and skills required for intelligent participation in civic affairs? These questions suggest the broad tasks of educators as they plan a curriculum to help students learn to make decisions in crucial areas of citizen responsibility.

To the degree that overall curriculum organization sets the conditions for allowing the student citizen a growing awareness of and involvement in deciding public policy, so also does the choice of curriculum content limit or enhance the meaning of academic experiences for citizenship education. More than a century ago, in asking what knowledge is of most worth, Herbert Spencer proposed that the schools place a priority on citizenship as one of the basic human functions. Hindered by lack of modern insights into learning and personality development, he inadvertently fostered a continued emphasis on the ornamental erudition he sought to displace by endorsing a dualism of knowledge for guidance as communicated in such an area as citizenship and knowledge for discipline —intellectual, moral and religious. Nevertheless, his original question, though limited in scope for the modern school, still serves the useful purpose of focusing our attention on the problem of content for effective citizenship training. An initial beginning in our quest for an answer to Spencer's query lies in the three problem areas proposed by Cook in the preceding chapter. It will be the purpose of this section to probe the implications of these areas for content selection and to suggest additional areas germane to citizen development.

In introducing a recent review of youth problems, Graubard quotes Erikson's plea for emphasizing the common, normal aspects rather than the peculiarly deviant facets of youth development.[7] Accepting Erikson's caution, we are led to interpret Cook's concern with street gangs and delinquency as one carrying wider relevance to total citizenry than the minority under study. If we begin as far upstream as possible, in the control of delinquency, to use Cook's phraseology, we will start in the earliest years of schooling to provide for all students a kind of program that assures healthy development. This means that the study of self, of interpersonal relations, and of values as guides to action should be a necessary component of curriculum content at all levels.[8] In the elementary school, of course, less sophistication will be in order but at the secondary and collegiate levels increased attention should be given to the psychological study of personality and the newer developments of social psychology. Interest in deviant behavior may provide a point of departure for more mature analysis of the dynamics of human behavior. The disciplines of anthropology, psychology and sociology should illuminate the studies of delinquency as well as other areas of citizen interest.

As with delinquency, Cook makes a similar use of emphases on a negative aspect of community life in his concern for understanding the local system of power. He links this need to the important responsibility of decision-making by defining power as a latent set of compulsions which can be applied to compel decisions. Rejecting the *status quo* in power politics, power economics and the like, he sets as tasks for the schools the enlightenment of students in the undemocratic aspects of power systems and their challenge to use power democratically for democratic ends.

If taken seriously, this challenge offers myriad possibilities for revised curriculum content in the traditional fields of government and economics. Civic education that involves children and youth in direct participation in community concerns is quite likely to encounter the local power systems.

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[7] Stephen R. Graubard. "Preface to the Issue 'Youth: Change and Challenge.'" *Daedalus* 91: 3-4; Winter 1962. p. 3.

[8] Association for Supervision and Curriculum Development. *Perceiving, Behaving, Becoming: A New Focus for Education.* 1962 Yearbook. Washington, D.C.: the Association, 1962.

Herein lie the cues to improved curriculum content. Community study by children and youth, often no more than an identification of familiar landmarks, would become a vital study of the dynamics of community action in respect to social class structures, status roles of citizens, and the analysis of leadership. Material from anthropology and sociology which illuminates the analysis of age-sex categories and their attendant roles in community life would offer greater depth to the existing patterns of investigation in social studies.

Similarly, civic education which aims toward acquainting and involving youth with more persistent adult patterns of responsibility, would borrow from the social investigators the procedures and findings of the many studies organized around the major social institutions, such as the Lynds' reports on Muncie, Indiana.[9] Following such approaches, students would analyze the social forces that give character and form to human needs by breaking down the community pattern into various life areas such as education, vocation, family membership, leisure, and religious participation. Cook has suggested in earlier writings the ways in which such a study might help teachers and students see how the quality of living in these areas and the normal sequence of activities within them are conditioned by prevailing attitudes toward such significant variables as age, sex, race, intelligence, wealth, sect, social class and the like.[10]

Community study which extends beyond the superficial into the realities of community power systems cannot easily be conducted in the traditional patterns of instruction. One of the difficulties associated with the "laboratory experience" of the Citizenship Education Project was that teachers and students looked upon the sporadic foray into the community as something that really competed for time with the traditionally accepted material of the civics course. The need for a complete reorganization of time and emphasis not now available in the schools has led McNassor to propose the use of the uncommitted summer session for extensive experience in community living.[11]

A third problem area proposed by Cook, the media of mass communication, offers one of the most challenging avenues for dealing with citizenship education for youth. In summarizing a wide collection of studies related to the impact of mass communications on youth development, Gerbner generalizes that "the goals and skills of democratic citizenship are conspicuous by their absence from the world of mass media." [12] His summary and analysis point to at least three conditions that offer a challenge to the schools as they deal with communication media as a problem area in citizenship instruction.

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[9] Robert Lynd and Helen Lynd. *Middletown: A Study in Contemporary American Culture*. New York: Harcourt, Brace and Company, 1929; and *Middletown in Transition*. New York: Harcourt, Brace and Company, 1937.

[10] National Council for the Social Studies. *The Social Studies in the Elementary School*. Washington, D.C.: the Council, 1941. p. 35.

[11] Donald McNassor. "New Designs for Civic Education in the High School." *The Adolescent Citizen*. Franklin Patterson, editor. Glencoe, Illinois: Free Press, 1960. p. 328.

First, the studies caution us on the assumption that to succeed in informing students on public issues assures their performance of civic duties. Described by Lazarsfeld and Merton [13] as the "narcotic" effect, the condition may emerge in which the student mistakes knowing about current events for acting on public issues, like many adults who make "following the news" a vicarious performance of citizenship responsibilities. By the nature of his restricted contact with adult roles, the student may be even more prone to succumb to the narcotic effect of the communications barrage.

A second implication may be seen in the tendency for the mass media to emphasize private aggrandizement over public service in its coverage of political, social and economic news. Commenting on his cross-national study of youth,[14] Allport recalls that, as compared with youth of nine other nations, our students were "the most self-centered, the most 'privatistic' in values," showing "little concern for the national welfare or for the fate of mankind at large." [15]

Here then is an additional concern for the curriculum builder who would define the proper use and study of mass communication in programs for citizenship. It suggests in a sense the countervailing role which classroom experience must perform in the face of compelling pressures in the press, radio and television. "Young people cannot help but learn that activity in the private and economic spheres is most applauded and rewarded," [16] writes Gerbner in reviewing related research.

A third and most provocative implication of mass communication for citizen training derives from the evidence that the impact from these media is determined largely by the degree to which students have direct contact with community affairs. Studies of this factor cause Gerbner to hypothesize that in schools offering meaningful channels for citizenship activity both within the school and wider community, the impact of mass media might assume a different role and complexion from the persisting patterns.[17]

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[12] George Gerbner. "Mass Communication and the Citizenship of Secondary School Youth." *The Adolescent Citizen.* Franklin Patterson, editor. Glencoe, Illinois: Free Press, 1960. p. 199.

[13] Paul F. Lazarsfeld and Robert K. Merton. "Mass Communication, Popular Taste, and Organized Social Action." *The Communication of Ideas.* Lyman Bryson, editor. New York: Harper and Brothers, 1948.

[14] James M. Gillespie and Gordon W. Allport. *Youth's Outlook on the Future: A Cross-National Study.* New York: Doubleday and Company, 1955.

[15] Gordon W. Allport. "Values and Our Youth." *Teachers College Record* 63: 211-19; p. 212-13; 1961.

[16] George Gerbner, *op. cit.*, p. 187.

Organizing the Curriculum for Citizenship Education

Because education is the servant of all our purposes, to use Gardner's conspicuous emphasis, the task for curriculum building is to develop a structure which honors the broad aims of education and at the same time does not entangle learning in a web of minuscule structures. Whether education should focus on the central purposes of "individual fulfillment" as Gardner suggests or on the goal of common citizenship, in either case there is the necessity for organizing the curriculum around educational needs which fall in the broad categories of general and special interest education.

Defining Roles of General and Special Education

Defining the roles of general and special education is one of the more significant problems with which an adequate curriculum theory must deal. Because the democratic way of life places a premium upon associated sharing and individual development, education has the responsibility for providing opportunities for experiences that contribute to both phases of living. What may be called general education is that aspect which deals with helping the student solve those personal-social problems common to all citizens in a democracy. This is the education necessary for individuals to share in common with others in the realization of basic values of living. Yet, schools in a democratic culture are obligated to develop optimally the individual capacities which serve to enrich and to enhance group life. This reciprocal relationship of both responsibilities is described by one educator as follows:

> The good citizen in a democratic society is one who works with his fellows in terms of common interests and problems and also makes his unique contributions to society through his special talents and abilities. These aspects of living, of course, are interrelated, for his special capabilities play back into group life and enrich it, just as group life stimulates the release of individual capacity.[18]

This relationship of general and specialized education suggests the need for staff understanding and clarification in order to plan the organization of learning experiences necessary to meet the distinctive functions of each.

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[17] *Ibid.*, p. 200.

[18] Harold Alberty. "The Relationship of General Education and Specialization in the Development of the Individual." *Proceedings of the Thirty-Fifth Annual Schoolmen's Week.* Philadelphia, Pennsylvania: University of Pennsylvania, 1948. p. 148.

If the program of general studies is to foster skill in decision making relative to the pertinent demands of citizenship, it must offer possibilities for students to deal realistically with such concerns. Despite tendencies toward fragmentation, recent surveys [19] show that scattered throughout the country are various core programs of general education in which teachers, in the context of a flexibly organized curriculum, are providing students with such opportunities. Since the criteria set by Cook suggest a program that is characterized by the flexibility and pervasive scope seen in many core programs, an examination of their potentialities for citizenship training may be useful.

Nature of the Core Program

What is the core program and what advantages does it offer for improved citizenship education? The term "core" usually refers to that part of the curriculum which utilizes a longer block of time than the usual class period for education and that meets common or universal needs of students in modern society. Thus, two distinguishing characteristics are noted. First, the core is concerned primarily with general education involving the knowledge, skills and values necessary for common citizenship and, second, it embraces a portion of instructional time sufficiently large to provide a unified organization of experiences which cut across the major disciplines. These characteristics foster conditions that enhance the possibility for dynamic participation in decision-making in areas of citizen responsibility and relate to citizenship education.

The core program encourages students to establish relationships between and among fields of knowledge. Effective core programs have a planned content of problem areas. From these areas, instructional units are developed that help students pull together knowledge from several disciplines in solving problems of common citizenship. That modern systems of communication make possible the application of knowledge from many disparate fields to common problems of living has been demonstrated by the documentation scientists. In building a basic education for adolescents, we can recognize with the scientists that "the very survival of our society itself may depend upon our ability to reaffirm in the most concrete and specific ways the unity of all human knowledge, both theoretical and practical." [20]

[19] Grace Wright. *Core Curriculum in Public Schools: An Inquiry into Practices.* Washington, D.C.: U.S. Government Printing Office, 1949; also, same author and publisher. *Core Curriculum Development: Problems and Practices,* 1950; *Block Time Classes and the Core Program in the Junior High School,* 1958.

[20] J. H. Shera. "Knowledge Goes Berserk." *Saturday Review* 39: 69; December 1, 1956.

In dealing recently with the sequential and lateral relationships discernible in a unifying curriculum, Tyler wrote:

> From the standpoint of the achievement of continuity and sequence, the discrete subjects, the discrete courses for each semester or year, and the discrete lessons, all impose difficulties that make vertical organization less likely to occur. There are too many boundary lines from one structure to another to assure of easy transition. Vertical organization is facilitated when the courses are organized over a period of years in larger units and in a larger general framework.[illegible]

Tyler's case for establishing lateral relationships continues:

> . . . to achieve integration is difficult if the organizing structure is composed of many specific pieces, since the tendency is to arrange the elements of each piece into some more unified form but to work out the relationship of each of these pieces to each other becomes more difficult as more pieces are involved. Thus, fifteen or sixteen specific subjects in the elementary school present more hazards to the achievement of integration than an organization which has four or five broad fields like the language arts, the social studies, health and physical education, and the like. A core curriculum involves even less difficulty in achieving integration so far as the interposition of boundaries between subjects is concerned.[illegible]

Consideration of Cook's three crucial areas of public decision making, namely juvenile delinquency, community power structure, and mass communication, reminds one of the need to seek multidisciplinary approaches to the problem engendered by these phenomena. Public decision making within the scope of any such area is dependent on the full use of knowledge from the wide range of sources. The core, with its flexibly organized structure of problem areas, offers this opportunity to establish lateral relationships among the disparate fields of knowledge.

Need for Involvement in Decision Making

The point has been made that citizenship education must involve students in a program of active participation in decision making related to public issues and concerns. Traditional courses often leave a student with respectable knowledge about such issues but provide scant direct involvement in their resolution. The core program, on the other hand, connects curriculum content more directly to student needs for social participation by defining curricular structure and con-

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[illegible] Ralph Tyler. "Curriculum Organization." *The Integration of Educational Experiences.* Fifty-Seventh Yearbook for the National Society for the Study of Education, Part III. Chicago, Illinois: University of Chicago Press, 1958. p. 123. Copyright 1958 by the University of Chicago.

[illegible] *Ibid.*

tent in terms of broad problem areas which reflect civic demands as well as personal interests. A flexible content of problem areas enables teaching to relate more directly to student needs and to societal demands than is possible in a subject-centered program. Courses for students in separate disciplines often promote ground-covering attempts at teaching. Such attempts may have little direct bearing on real problems of personal development or on the needs of the society that supports education.

In recent years, curriculum design for the schools has drawn from two general sources its concept of the learner's needs—studies of individual development and of the social milieu in which children mature. The former source, having as one of its antecedents the emphasis on the "unfolding process" of Rousseau's naturalism, has encouraged a curriculum devoid of any discernible structure. The second source, orienting the curriculum primarily to societal demands, has been largely responsible for incorporating the logically organized bodies of subject matter into basic curriculum structure.

The core program of general education reconciles these divergent tendencies by organizing for instruction significant problem areas around which student needs seem to cluster. Emphasis is placed on the personal-social nature of adolescent needs and the qualities of interaction in human experience. Viewed in this light, a concept of youth needs implies study of the adolescent behavior at various maturity levels and also an examination of the whole environmental pattern in which people operate. Study of the adolescent in his culture reveals needs that reflect the regularities and uniformities of the cultural pattern but also deviations and variations of the individual. A core program with a flexibly planned block of time enables a staff to develop a general curriculum based on common needs in such areas as communication, value clarification, family life, intercultural relations, and consumer problems.

Developing Citizenship Skills in the Classroom

The performance of civic duties involves essentially social skills, many of which are learned in the context of small groups. Cook has called attention to the potency of such groups in citizen education by insisting that "the teaching art is to make the group its own prime educator." Others have recognized in the "peer culture" itself the latent dynamics for effective learning of citizenship. Of the possibility of working with what he calls "the societies" of adolescents, Coleman writes:

> Not only is there an *opportunity;* there is extreme *urgency* in shaping these societies so that they generate their own civic responsibilities, for as

the natural processes of parental indoctrination become less and less effective, the vacuum becomes even greater—and it will be filled by an adolescent culture whose values lead away from rather than toward maturity and adult responsibilities.[23]

In order for the school to help the adolescent subculture to generate its own responsibilities, teachers will not only need to understand better the personal drives and cultural conditions which shape these societies but will of necessity need to adapt curricular practices for such capitalization. The latter need, the focal concern of this volume, has been the object of considerable curricular innovation in recent years, particularly of those programs which seek to involve students in direct study and action on problems of personal and social significance.

Surveys by the United States Office of Education show that in many schools there are programs of general education in which teachers, through a preplanned structure of problem areas, are encouraged to develop significant learning units characterized by a genuine search for social values in the context of problem solving. The central role of selected problem areas in curriculum structuring and of group problem-solving experiences in areas such as the three proposed by Cook should be further emphasized.

We should recall Dewey's suggestion that instructional procedures are unified and meaningful to the extent that they produce improved habits of thinking. In considering the appropriateness of educational method, Dewey suggested:

> The important thing is that thinking is the method of an educative experience. The essentials of method are therefore identical with the essentials of reflection. They are, *first*, that the pupil have a genuine situation of experience—that there be a continuous activity in which he is interested for its own sake; *secondly*, that a genuine problem develop within this situation as a stimulus to thought; *third*, that he possess the information and make the observations needed to deal with it; *fourth*, that suggested solutions occur to him which he shall be responsible for developing in an orderly way; *fifth*, that he have opportunity and occasion to test his ideas by application, to make their meaning clear and to discover for himself their validity.[24]

It is easily observed that these elements of reflective thought, when given full opportunity to function in the classroom, carry tremendous possibilities for a consideration of student values in the context of citizenship. Many teachers recognize and utilize the organizing principle of problem solving not only in the development of civic values but in providing the conditions for promoting critical thinking, social sensitivity, and other desirable characteristics of the competent citizen.

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[23] James S. Coleman. "A Sociologist Suggests New Perspectives." *The Adolescent Citizen*. Fra[illegible]n Patterson, editor. Glencoe, Illinois: Free Press, 1960. p. 295.

[24] John Dewey. *Experience and Education*. New York: Macmillan Company, 1938. p. 52. Printed by permission of Kappa Delta Pi, owners of the copyright.

A Case Example

The wide range of possibilities of this nature is evident in the present example of a teacher working with learners in a real problem-solving situation which occurred recently in a community on the Eastern Shore of Maryland. For many years the town had existed on both sides of an old navigable canal connecting the Chesapeake Bay with the upper Atlantic seaboard. When a federally sponsored project replaced the low, outworn bridge with a long cantilever structure, high enough to allow oceangoing traffic to pass under, the parts of the community located on either side of the narrow canal suddenly became separated by more than two miles of highway over the bridge and its approaches. As the community, and the school, became aware of the cleavage and social change brought by this transportation dilemma, members of a ninth grade class undertook a study of the possibilities for keeping their local community intact by establishing ties of solidarity between the two sections of the town.

The chronology of events during the eight or nine weeks involved in the study records a discernible pattern of interaction that is highly provocative of the values and skills needed for civic understanding and participation:

1. Having recognized that here was a natural "situation of experience" which offered interesting participation for the class, the teacher was careful to examine with the students all aspects of the situation that made it truly a problem for solution. This meant that the full range of relationships within a community—political, social, cultural, recreational, spiritual, educational and others—came under class surveillance as its members sought the ramifications of social change wrought by more difficult transit between the sections of their community. Analysis of the problem as a learning experience can be in this situation as integrating as the synthesis implied in the subsequent solution.

2. With the problem defined through certain activities of an exploratory nature, further analysis drew the class deeper into a search for facts which might lead to possible solutions. Here the principle of continuity came into full use when students applied the generalizations of initial analysis to ordering the directions of further investigation; that is, to use Dewey's description of continuity, "something is carried over" from an earlier experience to a later one.

3. Since integration in learning calls for an organization of expe-

riences in relation to purpose, pupils in this class were challenged to organize their findings in a way that suggested possible solutions to the common problem. For example, a committee of the class which had amassed considerable information on recreational needs and services developed a proposal for dispersing athletic and social facilities on both sides of the canal. Similarly, another group recommended to service clubs that locations for their meetings be established on an alternating basis in both sections of the town. Still another group, sensitive to the role of governmental agencies in determining community lines, called for cooperative approaches to town planning and zoning issues with equal geographical distribution of members for these boards as well as for those in the areas of traffic, sanitation and parks.

4. Carrying these recommendations to the intended civic and political agencies provided members of the class suitable occasions to test their ideas by application. Thus the progression of class activities from original explorations of the problem to the eventual validation of proposed alternatives marked a vivid example of achieving continuity of learning through analysis and synthesis, through selecting means appropriate to desired ends.

An attempt has been made in this section to describe some of the new content germane to civic education, to suggest greater flexibility in organizing general education for common citizenship, and to support investigative processes in the classroom which develop critical skills in decision making. These departures are seen as minimal changes which are necessary to transform a static program of civic education to one which prepares the student for lifelong commitment to responsible action as a citizen.

Values and Citizen Training

In extending Cook's ideas on citizenship development, we have described to this point some necessary content areas for study, decision and action through which the young citizen might take hold progressively of the more responsible tasks of the adult citizen. In addition, some attention was given to curricular approaches through organization and methods of instruction in dealing with pertinent problem areas. Something must also be said of the acquisition of values related to citizenship, a central point of Cook's argument.

One of the more provocative avenues for studying the effectiveness of schools today has been research on student values. With the exception of the quickened interest and concern for mushrooming enrollments and the enhancement of scientific studies, no educational problem has received such attention as this in recent times. However, most of this concern is confined to studies at the collegiate level. Although there exists an impressive body of literature pertinent to the study of values on any level, one finds relatively little evidence of wide research with elementary and secondary school populations.

However, the few studies conducted thus far, though generally disconcerting, offer interesting guidelines for additional research on the success of citizenship programs in the schools. Using the Riesman[25] thesis that schools should provide a "counter-cyclical" educative experience which would delineate sharply the values of challenge rather than routine conformity, Getzels[26] sought in a number of situations to see if the high school experience had produced noticeable shifts in student value patterns. Evidence from scales based on the Spindler[27] formulation of emergent secular values showed high school freshmen and seniors holding identical value patterns in relation to their curricular and scholastic attainments.

The recent work of Coleman[28] with student values in ten high schools of the Chicago area offers additional evidence for concern about the actual impact school life makes on the adolescent. Athletics for boys and attraction of athletes for girls were given top ratings in a list of other values bearing closer relationship to serious civic responsibility. Despite the discouraging findings of these studies, the question of values and how the teacher can best help students achieve a pattern consistent with ideals of democratic institutions is worthy of further consideration. How can teachers ascertain emerging value patterns and what curricular experiences enhance the possibilities for the school to contribute positively and seriously to the development of values which can guide civic action?

The Process of Value Clarification

Implications of values and teaching are well demonstrated in the work of Raths, whose writing and occasional papers on the subject have given considerable practical insight on the problem at hand. In addressing himself to the question, "What do we mean by values?" Raths proposes five criteria for determining whether specific acts of behavior actually reflect a value held by a person:

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[25] David Riesman. *Constraint and Variety in American Education.* Lincoln, Nebraska: University of Nebraska Press, 1956.

[26] Jacob Getzels. "The Acquisition of Values in School and Society." *The High School in a New Era.* Francis S. Chase and Harold A. Anderson, editors. Chicago, Illinois: University of Chicago Press, 1958. p. 146-61.

[27] George D. Spindler. "Education in a Transforming American Culture." *Harvard Educational Review* 25: 145-56; 1955.

[28] James S. Coleman. *The Adolescent Society.* Glencoe, Illinois: Free Press, 1961.

There must be pattern or repetition.

There must be prizing.

There must be consideration of alternatives.

There must be affirmation.

There must be relationship to live activities.[29]

Application of these criteria to specific expressions of attitude quickly differentiates loosely held attitudes from sound commitments to values. To discern a pattern of values, consistent or otherwise, one must have evidence of repeated expression of an attitude. Unless a person consciously cherishes an attitude as descriptive of his views and behavior, it is hardly fair to ascribe value status to this attitude no matter how often it is repeated. Hence, the need for applying the criterion of preference.

Even then such an expression of behavior may be rather casual, routine and unexamined, hardly a conception of preferred behavior. Raths asks, "Can we say of a person that he holds something as a value if he has not reflected on it?"[30] After having considered the consequence of an attitude, a person still must accept a formulation of the attitude as a concept for guiding behavior. Until he does, there seems to be no serious acceptance of a value implied. Finally, to ascribe full status of a value to the original attitude, one must ask if it has penetrated or affected the behavior of its possessor. Without this integration with behavior, the attitude remains at the level of verbalization and relatively meaningless for educative purposes. This instrumental definition of values is supported by other investigators such as Kluckhohn, who refers to values as "stable ways of resolving ambivalence."[31]

Implications for Curriculum and Instruction

To define a value as a conception of a preferred pattern of behavior seems to impose certain standards for conducting educational evaluation in this area. Appraising the success of schools in helping students develop consistent value patterns requires careful consideration of a number of implications stemming from the process for determining the value orientation of behavior. In the first place, it seems fairly obvious that, while the investigator must be concerned with student purposes, beliefs, attitudes, interests and feelings, he must distinguish or differentiate all these from what he can identify as clearly held values. To do so will probably mean that he may ultimately deal with a relatively few values. A second caution must be observed in respect to the tendency to rely too heavily on verbal responses in value-laden situations rather than on the patient observation of behavior. While some of the instruments suggested in the literature on this subject will provide partial evidence of value patterns, they do not provide the crucial support of observable behavior.

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[29] Louis E. Raths. "Let Us Keep Seeking to Clarify Values." *Introduction to College Life: A Book of Readings.* Norman Bell, Richard Burkhardt and Victor Lawhead, editors. Boston, Massachusetts: Houghton Mifflin Company, 1962. p. 54-57.

[30] *Ibid.*, p. 54.

[31] Clyde Kluckhohn *et al. Toward a General Theory of Action.* Cambridge, Massachusetts: Harvard University Press, 1951. p. 395.

Probably the most significant consequence of determining values along the lines suggested here is that situations must be available wherein teachers are engaging pupils in the experiences of value clarification. "It is this searching for values which is to be most highly prized," says Raths. "We listen and observe carefully for any evidence pointing toward a purpose, an attitude, an interest, a belief, a feeling, an aspiration, a thought, or an activity and we quite casually inquire into it. We use the five criteria as a basis. As we get answers to those five questions, we are in a position to judge whether a value is being identified."

If durable values are achieved through the process of value clarification, as Raths assumes, there devolves upon the teacher a responsibility for organizing and selecting learning experiences for pupils along lines provocative of such clarification. This means that the teacher must be cognizant of the sources of values as well as of productive procedures for bringing these values under scrutiny and examination. He must be able to see in the content of the curriculum its potential for providing value-laden experience and must know how to arrange the conditions for pupils to achieve their values through its reconstruction.

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CREATIVITY | SOURCES & CIRCUMSTANCES

IN the field of creativity, the search for new insights that might have curriculum implications has in recent years been both active and rewarding. The nature of the creative process has been thoughtfully reexplored and reconstructed. Characteristics of the creative personality have been defined from a variety of positions, and measures of such characteristics have been developed and tested. Increasingly, attention has gone to assaying the learning environment for what helps and hinders creative behavior.

This surge of interest has many origins, as indicated by the opening pages of both the chapters to follow. But the alacrity with which we in education have tried to profit from the research in creativity speaks most significantly of our hunger for new knowledge that promises really to make a difference. In fact, we are joining in the search ourselves by collaborating to test out in school situations the hypotheses developed elsewhere and to extend these as we can.

It is noteworthy, too, that our efforts in this regard have been kept at the level of new understandings rather than, as sometimes may have happened in these times of urgency and pressure, having been incorporated quickly and superficially into "provisions" or "programs." We are alert to new possibilities for developing creativity in more children and youth, but we are aware also that we still need to know a great deal more than we now do about how this can best be done. In relation to the area of creativity, as in the case of other areas that we have been reviewing in this yearbook, we are committed to behave more professionally through learning what is known and through working creatively ourselves to contribute to and test out new insights in the broadest possible curriculum context.

Frank Barron, in the first of our two chapters on creativity, reports on some aspects of the exciting study being conducted by the Institute of Personality Assessment and Research. This study differs from several other investigations with which we may be better acquainted in that it has as its subjects mostly mature persons of established creative achievement. It also differs in having delved deeper into the contrasts of personality and behavior between more and less creative persons. For our purpose, this study may represent the kind of source to which we need increasingly to turn for stimulating new insights.

In the companion chapter, Jane Franseth reviews the varied concepts of creativity and adds to the picture of the creative personality by citing the findings of other studies. Against this background, she then brings the educative process into focus and discusses what seems to be involved in freeing capacity to create. Her chapter closes with an analysis of several current concerns and practices that may seem to contradict our movement toward developing an environment more generally favorable to creative behavior.

Chapter 13

Creative Vision & Expression

Frank Barron[1]

THE day on which that awesome mushroom cloud arose indifferently over Hiroshima signaled the end of an era of unprecedented human destructiveness and the beginning of a new era of unprecedented power for destruction or construction. Particularly since then the minds of men in the most advanced clusters of culture (the United States, Great Britain, Europe, the Soviet Union, China) have turned intently towards the potential for creation which we human beings possess in such unique degree in the world of living things.

Governments became interested because the sheer physical power and, by a very short step, political power that came from inventiveness had suddenly become so manifest; commerce is newly interested because the increase in goods, services and profits is most evidently dependent on new ideas; religion is interested because old meanings have been destroyed and new ones call to be created; the individual is interested because to create is to be more fully and more freely oneself. Perhaps at no other time in all of human history has there been such general recognition that to be creative in one's own everyday activity is a positive good.

Science and art, of course, have always been interested; the act of imagination is their business. A scientific theory is an imagining of the way things could really be behind their appearances, expressed formally and accompanied by a set of rules whereby the goodness of the imagining may be appraised; a work of art is an expression of individual vision couched in a form which aspires to an audience of at least one who can say, "Yes, so it is!"

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[1] This chapter is a compendium of selected passages from a forthcoming book by Frank Barron, "Psychological Vitality and Creative Freedom," to be published in March 1963, by D. Van Nostrand & Company, Princeton, New Jersey.

Beyond these local interests, whether individual or national, is the increasing recognition by men in all parts of the globe that our capacity for creative thought and action may literally make all the difference in the world. The power of scientific discovery has suddenly increased the stakes for ethics and politics. In its crassest form, science serves merely national striving for power; in its purest form, it serves that aspect of power which involves the spread of our form of life and intelligence throughout the universe. Human creativity may prove to be the key to success or failure in man's quest for knowledge, in his journey beyond the bounds of the sure and the seen, in his exploration of the unknown.

Nature of the Institute's Study

These are some of the considerations which make the psychology of human creativity so vitally important. Such considerations played a large part in our own thinking at the Institute of Personality Assessment and Research as we turned our attention more and more from the appraisal of personal stability to the appraisal of potential for creative development in the individuals whom we studied. And no doubt some similar thoughts were in the minds of those persons in such organizations as the Rockefeller Foundation, the Carnegie Corporation, and the Ford Foundation who offered us support for the kind of research that we have carried on. At the risk of being too cursory and too simplistic, I should suggest that the primary motivation of both the research psychologists and those who were the focus of their social support could be summed up in this sentence: "It would be interesting and possibly very useful if we could learn more about the nature of creative activity, so that we might more readily find and foster creativity in individuals in our society, for the common good of all." With a bit of extension and modulation such a sentiment would not be much unlike the theme which Francis Bacon at the beginning of the scientific revolution voiced in the *Novum Organum:* "For the glory of the Creator and the relief of man's estate."

Mixed Feelings of Research Subjects

These sentiments may be all very well for research psychologists and for the assortment of agencies representing government, industry, enlightened philanthropy, religion, and education who think it fine that human creativity be studied scientifically. However, let me assure you, at the outset of this report on the program of research for which I had responsibility, that poets and painters and all the other artists who are poets or painters in one form or another were by no means convinced of the importance of this approach. Nor was I myself much more than halfway convinced, although it must be said of myself and of all the artists who did take part in the research that we went ahead with it. Several years ago, in describing the reaction of a number of creative writers to my invitation to them to participate as subjects in this work, I wrote as follows:

> We were not surprised to encounter rather spirited objections from some of the writers whom we decided to ask to make a contribution to the study. In trenchant and not particularly orderly prose, about a fifth of those who responded to our initial letter pointed out the intrinsically evil character of psychological research. The objections to such research are mainly on these counts: it is vivisection; it is an expression of the effort of organized society to encroach upon the individual and rob him of his freedom; it is presumptuous because it seeks to describe and to understand what is intrinsically a mystery. Psychological diagnosis is, moreover, a form of name-calling; it is a way of having the last word; it does not respect the individual. Finally, it is the present seeking to impose itself upon the future and to perpetuate the *status quo* through techniques which will identify the potentially constructive deviant and permit a stultifying society to control him.
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> Since psychological research at its worst may indeed be destructive in just such ways, socially responsible psychologists have reason to sleep almost as uneasily as socially responsible physicists. This particular study has proceeded in recognition of some of the dangers which may be inherent in it, and it has been able to proceed because most of the creative writers who have been asked to participate have been willing to trust the investigators and to accept the inevitable hazards of all efforts at increasing knowledge. Both scientists and artists have something to fear when they embark upon the unknown. In his *Life of William Blake,* Alexander Gilchrist records three sentences from Samuel Palmer's account of a conversation with Blake about the latter's designs for Dante's *Inferno:* "He said he began them with fear and trembling. I said, 'Oh, *I* have enough of fear and trembling.' 'Then,' said he, 'you'll do.' "

To this I can only add that now, several years later, when most of the work is done, I feel glad that I took part in the research, and I feel also that it has done no indignity either to the creative artists who participated in it, or to the mystery itself, which, I think we shall have to admit, has preserved itself rather well. That which is essentially mysterious cannot yield itself to scrutiny, and whatever we can find out about nature is ours to know. Pope Pius XII, in speaking several years ago to a group of astronautical scientists meeting in Rome, put it this way: "All creation has been committed and offered to the human spirit, that man may penetrate it and thus be able to understand more and more fully the infinite grandeur of his Creator." It is in such a spirit, tempered by the reflection that Proteus is a slippery fellow and shall hardly be caught whole in our little net of psychological tests and correlation coefficients, that we approach the phenomenon of psychic creation.

Findings Based Mainly on Writers

The main body of findings to be discussed here has emerged from work with a group of 56 professional writers and 10 student writers, and the method of work has been characterized chiefly by reliance upon psychological tests, interviews and experiments. Of this total group of 66 writers, 29 have taken part in living-in assessments, and 11 others participated on an individual basis in the extensive interviewing and testing but were seen by only one or two members of the staff and did not take part in the sorts of experiments which could be carried out in the living-in assessment setting and with other subjects. The remaining 26 were not seen at all by staff psychologists but did take a limited battery of tests and responded to the interview questions by writing out their answers, usually quite fully.

Although all these writers were actively engaged in creative work, they differed widely among themselves in the goals of their work and in the audiences they reached. Thirty of them were writers of wide renown who are generally considered important artists in the field of writing; their names were obtained by asking three faculty members in the English Department and one in the Drama Department at the University of California to nominate writers of a conspicuously high degree of originality and creativeness. Twenty-six others are successful and productive writers who were not nominated as outstandingly creative but who have clearly made their mark in the field of writing. While I intend to present some comparisons between these two groups, I wish to make it quite clear that I am not suggesting that one group is creative and the other is not; apart from the fact that it would be presumptuous of me to do so, I believe quite honestly that some of the writers nominated as outstandingly creative were actually much less creative than many of those who were not so nominated, and among the writers who were not mentioned by the nominators, and hence by this exclusion defined simply as representative of their craft, were persons of a high order of creative ability. In company with my colleagues who conducted similar studies of creative individuals and of comparison groups deemed representative but not outstanding, I shall adopt the cautious if not cowardly convention of referring to the group of writers nominated as creative as Writers I and the group not so nominated as Writers II.

In brief, the central body of data from which we have drawn our generalizations in this particular study comes from the testing and interviewing of 66 persons whose main aim in life is to create meaningful patterns with words. A small number of other writers took part only in the interviews, and another small but very distinguished group of painters and musicians as well as writers took part in a more recent study of the effect upon imagination of the psychodelic drug psilocybin. What I shall attempt to do here is to present some of our generalizations, and the supporting evidence for them, from the assessment-type study of writers.

Within the assessment-type data there are two main kinds of observations. First, there are observations arising from psychometrics, based generally upon large-scale testing of a representative sample of the general population and permitting statistical comparisons between people-in-general and certain special groups. Second, there are discursive accounts or records of unique individual experience, based upon interviews and experiments of such a nature that well-controlled statistical comparisons are difficult to make, a shortcoming more than balanced by the intrinsic interest which the material holds for us or the authority with which the single event speaks. I shall begin with the psychometric data and proceed via an interpretation of certain psychometric observations concerning mental stability to the rich interview data relevant to creative process in the individual.

Response to Disorder

Perhaps the single most well-established conclusion to which our work has led, not only with writers but with other artists and with scientists as well, concerns the creative individual's response to apparent disorder and his own need to find a subtle ordering principle.

Our recognition of this factor in creative functioning arose out of one of the very earliest steps we took to develop instruments of observation in the form of psychological tests. Our aim was to construct a test of artistic judgment which would give us a reliable and readily obtained estimate of the aesthetic sensitivity of our subjects. To this end we enlisted the cooperation of some 80 professional painters throughout the United States, concentrated mostly in such centers of activity in painting as New York, San Francisco, Chicago, New Orleans and Minneapolis. We asked these painters to choose for us from among several hundred line drawings those drawings which they liked. A consensus of artistic judgment was thus established with these materials, and the results were then compared with the consensus of opinion in a sample of 300 non-artists. With a little further work, it proved possible to develop from these comparisons a highly reliable and valid test instrument, known now as the Barron-Welsh Art Scale. Scores on the scale may range from

0 to 62, points being earned for agreement with the artistic consensus and disagreement with the popular consensus.

Artists and Non-Artists: Different Preferences

The importance of the findings which have resulted from the application of this scale rests not so much upon its psychometric properties or the method of its derivation as upon the nature of the materials themselves and the differences in preferences revealed between artists and non-artists. These line drawings were made in black ink on three-by-five-inch white cards, and they were varied primarily in terms of the degree to which they were drawn according to a geometric principle visible at a glance. The simplest forms were the straight line, the circle, the square, and the triangle. Complex polygons presented a somewhat less obvious principle of construction, and arrangements of curves a still less obvious principle. At the other pole from the simple geometrical figures were drawings which appeared to be childish scrawls or totally unarranged scribbles. When we asked the subjects to describe these figures, they applied such words as regular, neat, clean, orderly, and static to the simple geometric figures and such words as irregular, messy, whimsical, dynamic, disorderly, and chaotic to figures at the other extreme.

The painters in our original sample, as well as many artists and creative writers who have since taken this test, showed a marked preference for drawings which are complex, asymmetrical, and, in their terms, vital or dynamic. They also displayed considerable tolerance for drawings which most people would consider chaotic. In general, they showed aversion to or lack of interest in figures which were simple and obviously symmetrical.

This same test was used in our later study of doctoral candidates in some 14 departments, chiefly in the faculty of science of the University of California. When the candidates were separated on the basis of faculty ratings into two groups, the more original and the less original, we found that the more original students scored significantly higher than the less original. Within the science departments alone, the more original of these young scientists expressed preferences similar to those of artists. This I think is a most significant observation, to which I shall return later.

This test, taken in conjunction with a number of others, points to a conclusion which is important from the standpoint of theory. The other preference tests used included architectural designs, reproductions in color of hundreds of famous paintings, and cartoons. Tests of artistic expression were also employed: the subject was confronted with incomplete drawings which he was to complete as he liked, written images from which he was to construct a poetic metaphor, inkblots of ambiguous form which he was to interpret, colored pasteboard squares from which he could assemble a mosaic of his own design, and stage properties from which he was to create a scene on a miniature stage.

In preferences for paintings, as in line drawings, the more original subjects were inclined to like best the apparently unbalanced. Impressionism, cubism, abstract impressionism—these were the schools of painting whose products were preferred. What these subjects seemed to like was the work of art which accentuated some usually unobserved aspect of nature or which attempted a radical reconstruction of the common-sense world of reality.

The same tendencies were apparent in the tests which require active expression rather than mere preference—the completion of line drawings and the construction of mosaics. Original individuals were disposed to introduce asymmetry and complexity into their drawings and mosaics.

Behind this inclination to like and to construct what is not too simply ordered, there appears to be a very strong need to achieve the most difficult and far-reaching ordering. When confronted, for instance, with the Rorschach inkblot test, original individuals insist to a most uncommon degree upon giving an interpretation of the blot which takes account of all details in one comprehensive, synthesizing image. Since some of these blots are quite messy, this disposition to synthesize points up the challenge of disorder. It also illustrates the creative response to disorder, which is to find an elegant new order more satisfying than any that could be evoked by a simpler configuration.

Independence of Judgment

Another psychological trait which is commonly associated with originality of thought is independence of judgment. This trait has been studied experimentally by Solomon Asch [2] at Swarthmore College. Both in Asch's subjects and in those who took part in a modified version of the Asch experiment in our own studies, a clear relationship has been established between independence of judgment and originality.

Asch's basic procedure has been to place an individual in radical conflict of judgment with other individuals who are understood by him to be possessed of no special information, but who are in fact confederates of the experimenter. The apparent experimental task is to match the length of a given line with one of three other lines which are not equal to one another. The confederates of the experimenter announce their judgments one at a time and always in the same order. The individual who is not aware of the real nature of the experiment is placed so that he is one of the last to respond. On most of the trials, the experimenter's confederates give answers which conform to the length of the lines, but on some trials they consistently give prearranged false answers. The uninformed subject then has a choice of giving the correct answer or contradicting the evidence of his senses and going along with the others

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[2] Solomon E. Asch. "Studies in Independence and Conformity: 1. A Minority of One Against a Unanimous Majority." *Psychological Monographs,* Vol. 70, No. 9. p. 1-70; 1956.

Differences Between Independent and "Yielding" Persons

Asch found a rather disconcerting readiness in his subjects to abandon the evidence of their senses and to bow to the prearranged group consensus. However, about 25 percent of the subjects in the undergraduate groups he studied were not swayed by the false consensus but persisted in giving the correct answer. Although Asch was not primarily interested in the personality characteristics of independent and yielding subjects, he made available to me for personality testing a group of 42 subjects who had remained independent and another 42 who had yielded consistently to the false group consensus. Among the opinions expressed significantly more often (in response to a true-false type of questionnaire) by the independent subjects were the following:

1. I like to fool around with new ideas, even if they turn out later to be a total waste of time. (True)
2. The best theory is the one that has the best practical applications. (False)
3. Some of my friends think that my ideas are impractical, if not a bit wild. (True)
4. The unfinished and the imperfect often have greater appeal for me than the completed and the polished. (True)
5. I must admit that I would find it hard to have for a close friend a person whose manners or appearance made him somewhat repulsive, no matter how brilliant or kind he might be. (False)
6. A person should not probe too deeply into his own and other people's feelings, but take things as they are. (False)
7. Young people sometimes get rebellious ideas, but as they grow up they ought to get over them and settle down. (False)
8. Perfect balance is the essence of all good composition. (False)

These results suggested that the subjects who remained independent were more open to innovation and to the challenge presented by apparent imbalance and imperfection on the surface of things. In addition, when using a self-rating scale which included among other traits that of "originality," the more independent subjects described themselves much more frequently as original than did the yielders.

The findings also suggested the possibility of establishing by experiment that independence of judgment is associated with originality. The relationship has been shown directly by using in conjunction with a modified version of the Asch experiment a set of psychological tests which measure originality. These tests, a number of which have been developed by J. P. Guilford and his associates at the University of Southern California, are designed to elicit novel responses and unusual solutions to problems. While the actual test questions cannot be given here, some idea of their nature may be conveyed with substitute examples.

In one such test, the subject is given the names of common objects (such as wheelbarrow, light bulb, piano) and asked to suggest unusual uses to which these objects may be put. In another, he is asked to suggest consequences of highly improbable events (*e.g.*, all human beings have suddenly become deaf; an unexplained genetic alteration will result in an average decrease of two feet in stature in the next generation; one nation in the world has found a way to raise its average IQ by 50 points). Other tests include anagrams (scored for rarity of proposed solutions), inkblots (scored for unusual interpretation), pictures of dramatic situations which serve as the starting point for storytelling (rated for originality), and plot situations for which titles are to be constructed (rated for cleverness). Judging by our results so far, individuals who regularly perform in an original manner on these tests are also independent in judgment when put under pressure to conform to a group opinion which is in conflict with their own.

Usefulness of Independence Scale and Other Measures

Moreover, the true-false verbal scale from which I have given some sample items has continued to prove quite valuable as a predictor of creativity in our current studies. I shall give here the results only with the writers. The average score of the general population on the Independence of Judgment Scale is 8.12; the group of Writers II scored 11.69, the student writers scored 15.2, and Writers I scored 15.69. While Writers I and the student writers were not significantly different from one another, both differed significantly from Writers II at the 1 percent confidence level, and they in turn obtained significantly higher scores for independence of judgment than do people in general.

This sort of general trend obtains for a number of other measures as well. Writers II tend to fall about midway between the general population and Writers I, with student writers being much more like Writers I than like Writers II, probably reflecting patterns of identification and of life style as much as of ability proper. This was true, for instance, of the Gough Originality Scale: Writers I scored 67.3 and Writers II scored 61.58, where the mean of the general population is set at 50 and the standard deviation at 10. Another scale which showed this pattern was Flexibility, Writers I scoring 60.5 and Writers II 55.65; in this case, student writers were markedly higher than either of the other groups, averaging 72.8. (Using this sort of convention or so-called standard score format with the average at 50, scores of 70 or more are higher than those of 99 percent of the general population, while a score of 60 places the individual higher than about 67 percent of the generality.) Another way of putting this, which perhaps expresses the pattern better, is to say that the *average* student writer is more flexible than 99 percent of the general population, while his elders in the field of creative writing are more flexible than about 70 percent of the general population. However one puts it, the finding is clear: writers as a class are significantly more independent, flexible and original than most people, and the creative writers who have achieved renown do very well for their years by being almost as flexible as their student counterparts and a bit more independent.

Question of Psychological Health

When one turns to the question of psychological health in relation to creativity, the picture is by no means a simple one. All three groups of writers earn markedly deviant scores on the scales of the Minnesota Multiphasic Personality Inventory, which is designed to measure the resemblance of those who take the test to certain diagnostic groups in the mental hospital setting. Again, both Writers I and student writers are most deviant, with Writers II falling in between them and the general population. Writers I score particularly high on scales measuring schizoid, depressive, hysterical, and psychopathic tendencies and are also very far indeed from the general population norms in terms of femininity of interest pattern.

Both Sicker and Healthier

However, the picture is not simple, even in unthinking psychometric terms. In spite of obtaining such high scores on measures of pathology, all three groups of writers also obtain distinctly superior scores on a scale which measures strength of the ego, although that very scale bears a high negative relationship to the measures of pathology when general population norms are considered. In brief, if one is to take these test results seriously, the writers appear to be both sicker and healthier psychologically than people in general. Or, to put it another way, they are much more troubled psychologically, but they also have far greater resources with which to deal with their troubles. This jibes rather well with their social behavior, as a matter of fact; they are clearly effective people who handle themselves with pride and distinctiveness, but the face they turn to the world is sometimes one of pain, often of protest, sometimes of distance and withdrawal; and certainly they are emotional; all of these being, of course, the traits indicated by the peaks on their profile of diagnostic scores.

Another test, similar in format to the Minnesota Multiphasic Personality Inventory and built in part from the true-false items of the Minnesota test but differing in that its purpose is to measure traits related to personal effectiveness rather than psychopathology, bears out the finding regarding greater ego-strength in these creative individuals. This test, the California Psychological Inventory, provides measures of such traits as personal dominance, social presence, motivation to achieve through independent work, intellectual efficiency, and the like.

All three groups of writers, so measured, are significantly superior to the general population in Social Presence, Self-Acceptance, Capacity for Social Status, Psychological-Mindedness, and Achievement through Independence. They achieve markedly lower scores in Achievement via Conformance and also make rather low scores on Socialization, a performance which in this context I think is correctly interpreted as resistance to acculturation, for the so-called socialization process is often seen by the creative individual as a demand for the sacrifice of his individuality, which indeed it often is.

Other Major Conclusions of Study

One other set of findings, which I shall mention only briefly, concerns the relationship of creative writing ability to such Jungian concepts as extroversion-introversion, feeling-thinking, judging-perceiving, and intuiting-sensing, functions which are seen in Jung's theories as polar opposites. A measure of each of these factors, the Myers-Briggs Jungian Type Indicator, was used in our studies. Both Writers I and Writers II show much the same pattern; they are distinctly more introverted than extroverted, more feeling than thinking, and more intuitive than oriented to sense experience. The latter finding is particularly marked; only two members of Writers I were not classified by the test as intuitive, and only four members of Writers II; overall, 89 percent of the writers studied were intuitive, as compared with about 25 percent of the general population.

Because of limitations of space, I shall confine myself to the statement of just three other general conclusions, one drawn from psychometric evidence and the others primarily from interview data and from experiments which are rather unusual.

Writers Are of Superior Intelligence

First of all, most writers who produce original work are of superior intelligence. This is hardly news, perhaps, but still we were surprised at the consistency with which we observed high scores on standardized tests of intelligence. One of the tests we have used is the Concept Mastery Test developed by Lewis M. Terman and his associates at Stanford University, which was designed especially to provide differential measurement in the high IQ ranges. Normative data were available from the Terman study of gifted children with IQ's in the range from 140 IQ up. Scores made in adulthood by that highly gifted group were compared with our own highly selected group of writers who had achieved distinction, and on the basis of that comparison it appears safe to say that creative writers who produce original work in large quantities have IQ's, on the average, in the neighborhood of 140 or higher.

There is more to originality than intelligence, of course. In another study, by statistical means we partialled out the effect of intelligence in determining originality and discovered that much of the remaining variance in originality could be accounted for by attributes usually considered non-intellective. These included general energy level, commitment to the problem at hand, and a tendency to resist constraints and to be expressive rather than suppressive in relation to one's own possibly errant impulses, thoughts, wild ideas and so on. A special comparison was made between persons of, on the one hand, relatively high intelligence and relatively low originality, and, on the other, relatively high originality and relatively low intelligence; the main personality difference between the groups seemed to be that the intelligent but relatively unoriginal subjects were passive, peaceful and pleasant, while their opposites were aggressive, tactless, impatient, impulsive and somewhat unstable. Without by any means concluding that nice guys do not win in this matter, it seems reasonable to me to say, peacefully and pleasantly, that a few titres of willfulness, self-assertion, and eccentricity might mix effectively with that high IQ if one is to forge ahead into new territory.

The relationship between intelligence and creativity is thus by no means a simple one. Where the subject matter itself requires high intelligence for the mastery of its fundamentals, as in mathematics or physics, the correlation of measured intelligence with originality in problem solving within the discipline tends to be positive but quite low. Among artists such as painters, sculptors and designers, the correlation between rated quality of work and measured intelligence is zero or slightly negative. Again, however, it must be remembered that commitment to such endeavors is already selective for intelligence, so that the average IQ is already a superior one. A generalization which I would suggest, based not only on my own studies and those of my colleagues at the Institute but upon a number of other studies during the past three years at the University of Minnesota, the University of Chicago, and the National Merit Scholarship Corporation is this: Over the total range of intelligence and creativity a low positive correlation, probably in the neighborhood of .40, obtains; beyond an IQ of about 120, however, measured intelligence is a negligible factor in creativity, and the motivational and stylistic variables upon which our own research has laid such stress are the major determiners of creativity.

Importance of "The Moral Attitude"

Among these motivational variables must be included what I shall call simply "the moral attitude." One finds in creative writers a profound commitment to larger meanings of an aesthetic and philosophical sort which can find expression in the life work which the individual has chosen for himself (or, as some have put it, in the life work which has chosen him). As an aside, one may recall here Goethe's statement: "I did not make my songs, my songs made me." In brief, such individuals are involved constantly in the creation of their private universes of meaning; they are cosmologists all.

I am convinced that without this intense cosmological commitment, no amount of mental ability of the sort measured by IQ tests will suffice to produce a genuinely creative act. Without wishing to be overly dramatic in this matter, I believe it is literally true that the creative individual is willing to stake his life on the meaning of his work. We think we have observed this in our intensive interviews with subjects in our own studies, and certainly the many biographies and autobiographical writings of the great artists and scientists bear out the conclusion. Indeed, regulative beliefs of an almost metaphysical sort lie behind the most dedicated quests for new forms of artistic vision.

Creative vision, whether in art or in science, has always involved an act of rejection preceding the act of construction; the structure of the world as most people see it must be broken or transcended. William Blake, a great artist both in writing and in painting, has spoken of "fourfold vision." For him, single vision is simply what ordinary physical eyesight enables us to see; the world that the consensus of opinion based on a limited use of senses would affirm as real. A tree is a tree, an inkblot is an inkblot, the sky is blue, and so on. Twofold vision is the still limited act of imagination; a cloud formation looks like two lions fighting or an elephant pushing a Mack truck; the inkblot "might be" two dancers or a bird in flight or a monk kneeling in prayer. In threefold vision, we do not see the mean thing-in-itself as in single vision, nor the thing as it might be if it were a little or even a lot different as in twofold vision, but we see the thing as symbol. Goethe has the heavenly chorus sing at the conclusion of *Faust:*

All things transitory but as symbols are sent;
Earth's insufficiency here grows to event.

The symbol presents a reality transcended; it is the medium through which a superior vision of reality is sought, it amplifies the poor real world by an act of imagination. The Irish poet, William Butler Yeats, in a poem entitled, "The Circus Animals' Desertion," in which he laments a drying up of the fount of his poetic reverie, gives us these lines:

Players and painted stage took all my love,
And not the things that they were emblems of.[*]

The symbol, the play, the dream—these are the manifestations of threefold vision.

Fourfold vision is still a step beyond; it is the vision of the mystic, the seer, the prophet; it is vision suffused with the most intense feeling—horror, awe, ecstasy, desolation. A passage from Blake himself illustrates it well:

> I assert for myself that I do not behold the outward creation and that to me it is hindrance and not Action. . . . "What," it will be Questioned, "When the Sun rises, do you not see a round disk of fire somewhat like a Guinea?" Oh, no, no, I see an Innumerable Company of the Heavenly host crying, "Holy, holy, holy is the Lord God Almighty." I question not my corporeal or Vegetarian Eye any more than I would Question a Window concerning a Sight. I look through it and not with it.

Their Vision of the World

In this research we attempted through a variety of techniques to understand the vision of the world which our subjects had. Their work itself, of course, is their primary testament, and that work we studied in great detail so that in our interview on the actual process of creation we might be enabled to ask the significant questions. How often we succeeded I do not know, but I did feel in many of the interviews that we were getting close to the heart of the matter.

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[*] *The Collected Poems of W. B. Yeats.* New York: Macmillan Company, 1951. p. 336.

Let me give you an example, from one of our subjects but not from our research files alone because this has been made the material of an essay elsewhere. The poetess Muriel Rukeyser has described how she came to write her magnificent poem, "Orpheus," in which the torn body of Orpheus is magically restored to integrity. The poem began many years before it came to words; it began in her childhood really, in her search for a sense of personal identity and integrity, and its crisis was focused in an image of disintegration which came to Miss Rukeyser as she walked along a crowded street in New York City. The people whom she saw suddenly in her vision became all jumbled together, dismembered, their bodily organs torn from their own bodies and attached to others, their identity itself destroyed. The image came to her for one horrible moment, then disappeared; but she was shaken and changed by it. For several years thereafter it recurred occasionally, and it always was an experience of horror and terror. By a process too complex for me to describe here, it somehow became assimilated to the image of the body of Orpheus, torn by the stones of the Thracian women and left strewn on the mountain top. Finally came the act of reconstruction, reconciliation, transcendence: the poem came to her, which to her was itself the resurrection, Orpheus himself being the archetype of the poet.

Two Experiments in Symbolic Transformation

In the records of our research, we now have many such accounts of symbolic transformation, the essence of the act of poetic and artistic creation. I cannot do justice to the richness of this material in so limited a space, and I think it better to leave it at this, since a full report of the research will be available elsewhere. Let me, however, give a few examples of unusual realization and symbolic transformation from two other experiments which are an important part of this body of research.

Originality in Dreaming

The first of these experiments I developed from a study of originality in dreaming. In that study, I secured the cooperation of some 150 individuals who agreed to report all their dreams every day for three weeks, writing down, just as soon as they woke up, the dreams as they had experienced them. From these protocols, which describe the so-called "manifest content" of the dream, it was possible to obtain estimates of the relative originality of the dream; raters who read the protocols independently agreed highly among themselves in this sort of judgment. Moreover, originality in dreaming proved to be related to a number of other factors in cognitive functioning as determined by tests. However, a serious problem presented itself: might not the real act of originality be shown not in the content of the dream as the dreamer experienced it consciously, but in the act of transformation from the so-called "latent content" which Freudian theory insists is there and which it is the business of the dream to disguise?

In trying to find a way to answer this question, I hit upon the following idea: have everyone dream a dream whose latent content is identical for each. This could be done, or at least closely approached, by suggesting to each subject the same complex during a deep hypnotic trance, and then suggesting as well that he would be amnesic for all suggestions and would while asleep that evening have a dream about the events described. This worked out quite well in most cases. The implanted complex which the hypnotized subject was directed to remember as an incident which had actually occurred to him was as follows:

> Last Sunday evening on your way home you found a red purse in which there was a $100 bill. In the purse was the name of its owner, a neighbor of yours. Since it was late at night you took the purse home, planning to return it to its owner the next day. But then you were tempted and took the $100 out of the purse. You then placed it in a drawer of your desk. In the middle of the week, you opened the drawer and much to your surprise discovered that the purse was gone. You were at once fearful that the person who had found the purse would return it to its owner and implicate you. And you were also troubled by having yielded to temptation in taking the $100 bill, feeling very guilty. You have not been able to sleep well since this happened, and you have spoken to no one about the incident. You have been trying to forget the whole affair, but it is troubling you very much and tonight you will have a dream about it.

I will give just one example of a dream built upon this implanted complex, although many examples, all wildly different, might be given. The following was a dream reported by one of the student writers, a young woman:

> Strangely enough, I didn't want to go to sleep last night. I was frightened of it and continually saw strange figures and designs running before my eyes—mostly red squares, circles, straight black lines, all of them falling quickly down. It was very depressive, and a sense of foreboding settled—almost that to go to sleep would be evil. I opened my eyes once trying to shake away the evil. The skis in the corner, black and evil, seemed to be coming at me. I rolled over. I tried daydreams but I couldn't concentrate. My rebelling psyche wouldn't allow sleep. I tried concentrating on numbness, but my limbs assumed a dull ache, particularly in my right hand, which throbbed, a similar sensation when in a dream trying to run away from something but unable to run fast enough.
>
> Somehow, sleep.
>
> And then sharp awakening. I sat up in bed with a quick vengeance,

eager to shake off an oppressive, weighing force. Such a strange dream. I can't understand it.

Running, running happily, laughing breathlessly, down a long road; something under my arm, a small red object without any definite shape, more a shade of a color. Suddenly, a large deserted mansion loomed up in front of me. I hurried quickly inside and climbed, climbed blocky, heavy steps. A long time. But at the top a closet, open. The red shade had grown to gigantic proportions, almost the size of a trunk. I pushed it in the closet, but not really push—despite its size it was very light and almost dropped into the closet. I started gathering things from the red trunk, some strange objects. Suddenly the door slammed hard against its frame, and frightened I rushed down the stairs. As I walked down, I seemed to change clothes, or rather new things seemed to replace the old. I was richly clothed by the time I reached the bottom. But then a great sense of fright fell about me and I began to run—quickly through a meadow. Someone chased me—a stout figure with long, flowing hair. Soon, more stout figures pursued. Back in the mansion I hurried up the stairs, but there were few this time. The closet door was open and there was nothing there, only space. I could hear rumbling of voices, pounding, pounding, louder and louder. An then a mass of gray or rather haze rushed at me and I started back hurriedly into the closet—back, back. And then space, falling, falling, falling. . . .

As one can see, the technique is a powerful one for studying the nature of symbol formation and the enormous variation among individuals in their ways of experiencing the world. And it quickly makes the lesson plain that there are as many visions of the world as there are people. To return again to our friend Blake, in an extraordinary essay entitled, "The Marriage of Heaven and Hell," he describes a condition in which "the doors of perception are cleansed" and one sees clearly without the myriad preconceptions and adopted schemata and rules and classifications with which our vision is ordinarily encumbered.

Experiment with Psilocybin

Aldous Huxley, himself a visionary, has seized upon the effects of mescaline as a possible route of access to a state of consciousness innocent of such limiting schemata and has written of his experiences in a book titled *The Doors of Perception.*[4] During this past year, while I was on leave from the Institute and teaching at Harvard University, I had the opportunity in association with Huxley and with one of my Harvard colleagues, Timothy Leary, to further this study of unusual perception through the use of the drug I referred to earlier, psilocybin, a chemical synthesis of the ingredients in the so-called divine or sacred mushroom used by the Mazatec Indians as part of their religious ceremonial. Thirty persons of a high degree of originality, writers and painters for the most part although numbering among them several distinguished scientists as well, took the drug in pellet form. Each of them a few days later wrote of his experience. From our research files, I have selected representative statements by two individuals to give the reader the general flavor of the reports we received. After presenting these examples, some of which have been reduced in length, I shall attempt to generalize from our total sample and offer several summary statements descriptive of these effects and to suggest some implications for our topic, creative vision.

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[4] Aldous Huxley. *The Doors of Perception.* New York: Harper and Brothers, 1954.

Changes in the perception of visual form occur in virtually everyone who takes psilocybin. I have selected as a first example the report given afterwards by one of the painters in this study. His report regarding visual changes is not atypical, but because of his own sensitivity to visual form it qualifies as an excellent account of the sort of thing reported by many subjects. Here are his own words, written two days after the experience:

> I was most strongly aware of the effects of the drug upon my vision, not in the sense of optics but in the disarrangement of the total process of seeing, including clarity, emphasis, perceptual focus, and spatial disarrangement. I do not believe that I underwent any hallucinatory visions; all that I saw was "real," but it was different in many ways from what I have previously known.
>
> Time seemed to move pleasantly slowly . . . the music that was being played was noticeably pleasant, but then so was everything else. . . . I felt very much attuned to the world as a whole and I felt in extremely high humor . . . I looked at my watch and was surprised and relieved to discover that so little time (Experimenter's note: about 40 minutes) had passed. At about this time I became aware of several visual facts which I had not noticed before; an appealing parallelism between the horizontal window moldings and the horizontal branches of a tree beyond the window, a subtle play of color involving a distant red signboard and some foliage, a blue-green shutter that seemed to glow in an otherwise muted setting, the interplay of the patterns and colors of the sofa cushions, and the contrast between a symmetrical and upward-arched evergreen and the starkness of a bare branch which reached towards it.
>
> In none of these was there any distortion, although I seemed to be able to accentuate or diminish apparent depth at will and there was an intriguing visual play involved in the whole process of snapping from one plane to another. . . . The first real distortion which I noticed was on the wall of the central hallway where the strongly textured wall-covering seemed to undulate slightly but appealingly. Later I felt that the living room was somewhat plastic and that when I attended to a certain aspect of the room, the room as a whole seemed to recede away from that point and the area of my attention seemed to flow or bulge outward. This apparent phenomenon was highly transitory and shifted very fluidly and readily from one kind of form to another. It was, again, not in the least unpleasant.

> I attempted some drawings but found that my attention span was unusually brief. . . . Interruptions, such as the model moving, did not really bother me and on at least one occasion a considerable period passed between the beginning of the drawing and its completion (if it could have been called complete even at that point); I simply picked it up and finished it when the occasion presented itself. I seemed to become unusually aware of detail and also unusually unconscious of the relationship of the various parts of the drawing. My concern was with the immediate, and what had preceded a particular mark on the page or what was to follow seemed quite irrelevant. When I finished a drawing, I tossed it aside with a feeling of totally abandoning it and not really caring very much. In spite of the uniqueness of the experience of drawing while influenced by the drug and my general "what the hell" attitude toward my work, I cannot help but feel that the drawings were, in some ways, good ones. I was far better able to isolate the significant and ignore that which, for the moment, seemed insignificant and I was able to become much more intensely involved with the drawing and with the object drawn.

Permit me to call attention to those aspects of this painter's report which are most consistently reported by other subjects as well:

1. The plasticity which the forms of the visual world assume, even though ordinarily these are forms with what we see as sharp boundaries, as immovable or impenetrable, and as straight rather than curved. There was an increased fluidity and fleetingness of impression. I was an observer during this session, not myself under the influence of the drug, and I watched the artist as he did the drawings he described. I was impressed by their rapidity, their intuitiveness, and their conciseness of expression.
2. The emphasis upon play of light and color, as though light were alive.
3. The increased beauty of the world, in terms of subtlety, glowingness, softening of otherwise harsh outlines.
4. Total identification with the object at the precise moment of viewing it, but total unconcern once it had passed out of the visual field. What this seems to reflect is an increased importance of the momentary, the here and now; what is past is not real, what is done with is not worth remembering, or caring about.

Here is an account of his experience with the drug written by a psychologist:

> Without a doubt this was the most amazing and intense experience of my life. At first everything seemed very funny, and I laughed uncontrollably, sometimes for no apparent reason. Then the carpet started to sway and move in waves. When I closed my eyes, there was a whole field of highly symmetrical, three-dimensional geometric patterns that shifted and changed constantly . . . brilliantly colored geometrical patterns of fantastic beauty collided,

exploded, raced by. . . . The patterns on the carpet rose up off the ground, twisted, and moved about. Outside the window the branches of the trees were gigantic arms with transparent muscles, now threatening, now embracing. The bookcase was full of swimming books, the door bulged like a balloon, the carpet in the other room was full of thousands of little green snakes. The dial on the telephone was a huge pearl-studded wheel. The shapes and colors of objects got more and more intense, the outlines etched with luminous clarity and depth; anything with a polished metal surface turned into gleaming gold and silver.

I felt like shouting, "Look, see how beautiful, how amazing. . . ." The music on the phonograph was transformed into Christmas bells. . . . The faces of other people became clear and beautiful and open. . . . Their faces looked bright and strong, like those of archangels. I could look at them without fear or shyness and with frank admiration and adoration. . . . People looked naked, shed of a fog of dissimulations, anxieties, hypocrisies. Everyone was true to their own self and no one was ashamed.

It is interesting that the psychologist did experience many of the visual phenomena which the artist experienced but that in addition he saw people differently and related to them differently. The perception of nonhuman visual forms and that of people were similar, however, in their innocence.

With this, I think it best to stop giving detailed examples from actual subject reports. However, let me add a few observations and then make a summary.

First, some observations: Most of the reports have had a primarily pleasurable or even ecstatic tone to them. About 10 to 15 percent of the experiences do seem to be unpleasant rather than pleasant, and occasionally a positively hellish time may be had by all. The experiences which I call hellish are marked by a sense of impossible distance between people, of intrinsic solitariness of the self, of vast blackness and desolation throughout the universe, of the puniness of the shelters we have made for ourselves, the feebleness of fire against the outer coldness and blackness, and an anticipation of death or a feeling that one is already dead. The light and glow with which persons are suffused, or which come visibly from them, in the heavenly experience, seem to go out when the experience is one of hell. Or the person may seem to move in dark ugly red shadows, or to be a sickly green. Smiles become meaningless grimaces, and all human actions seem mere puppetry. In the hellish experience, time may seem impossibly slow and painful, and determinism is experienced as being a prison. By contrast, determinism is experienced under happier conditions as being perfectly natural and quite all right. The subject knows, with the preacher in Ecclesiastes, that there is nothing new under the sun, that every story is an old story and has been told an infinite number of times before, but that seems somehow to be all right. Everything is reconciled, time does not matter.

You will recognize in these observations some concrete illustrations of the age-old paradoxes which philosophy grapples with and art occasionally resolves. The philosophic problems are these: the problem of the one and the many; unity and variety; determinism and freedom; mechanism and vitalism; good and evil; time and eternity; the plenum and the void; moral absolutism and moral relativism; monotheism and polytheism and atheism. These are the basic problems of human existence and, so far as we possibly can, we arrange things so as to forget them.

The requirement which the universe has put to the human brain is that of striking an average in many, many dimensions simultaneously, so that the individual unit of life, that is, you and I, may continue alive as long as possible, and thus that life on the whole may increase. But the paradox is that this requires, from the individual point of view, a sacrifice of self. We are required to be part of universal habit, but evolution has brought us to that point of consciousness where we as individual human beings realize the preciousness of consciousness and perhaps take pride in our individual, inimitable selfhood. It does not make sense that we should be given life on the one hand and death on the other. The easiest thing to do is to forget it, and this we usually succeed in doing, with the help of our average-making brain, that remarkable machine which psychologists are now working to simulate in some material which does not feel and which need not dissolve so soon.

What psilocybin does is to reverse or slow down some of the averaging process, alter our experience of the passage of time, dissolve many definitions and melt many boundaries, permit greater intensities or more extreme values of experience to occur in many dimensions.

In summary, the creative person defined by the research reported in this chapter differs in many ways from the less creative. Creative persons are more welcoming to the apparently disordered or asymmetrical; in fact, they may be attracted to the disorganized or ambiguous as offering a challenge to their strong sense of need for new ways of ordering. Creative persons are also more independent in judgment than the less creative. They are also at once both sicker in terms of being troubled and healthier in terms of having greater resources for dealing with their troubles. They are of superior intelligence. And perhaps most important of all, creative persons are moved by an intense commitment of an almost metaphysical sort that impels them to search for new forms of artistic vision.

What such findings as these may mean for education is the subject of the chapter to follow.

Chapter 14

Freeing Capacity To Be Creative

Jane Franseth

EDUCATORS have always been concerned with developing and nurturing creativity. Over the years, however, we have usually associated "creativity" with certain special aptitudes that some people were supposedly born with and others not. The general impression has been that successful development of creative ability would concern itself largely with those persons of unusual artistic, musical, literary or other endowments.

In recent years, a growing realization has emerged that creative potential may not be something confined to a few people and determined at birth. Available evidence seems to support the view that no one is without creative potential. Perhaps in consequence, interest in the development of creativity has increased considerably. In fact, as Wolf says, it is now probable that "more educators . . . recognize a need for releasing each child's creative potential as one basic objective of the elementary schools than during any comparable period in the history of education." [1]

Reasons for Increased Interest

Reasons for increased interest in fostering the development of creative ability are no doubt many. Yet among the factors having special significance seems to be the growing knowledge, already indicated, that creative ability is not necessarily limited to a few persons; every individual may possess potential, although in many instances such potential may be undeveloped. Another aspect of great interest is the extent to which and how creativity is developed. No doubt this development is dependent on a number of factors not easily identified. There is good reason to believe, however, that among the factors that make a difference are some of the educative processes beginning at birth.

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[1] William C. Wolf. "Creativity: The Concept on a Hot Tin Roof." *National Elementary Principal* 40: 4-9, 1961. p. 5.

An important reason for current concern for the cultivation of creativity in all persons is a growing recognition of the significance of this characteristic in the development of a genuinely free people. To help every individual become his best self is a major obligation to the individual in American democracy. Among the most important contributions to this end is an educational program that fosters individual initiative, originality, inventiveness and respect for evidence in making judgments.

Such a program will facilitate the development of persons increasingly able to live in accord with the values of a free society. "To live creatively is to live truthfully," says Anderson. "It is to live truthfully as one himself sees the truth. To live merely according to the truth as someone else sees the truth is not creativity, but conformity." [2]

Providing the kinds of learning opportunities which will help learners use their energies in creative ways is, of course, far from easy. Fortunately, research in the field is accumulating. Specialists in the field are making important contributions to increased understanding of creativity and also of education for developing creative powers. In the preceding chapter, Frank Barron points out a number of the elements of creativity. Elsewhere, he deals directly with the role of education:

> Systems of education have always been caught in a paradox. The aim of education is to lead the mind out into the open, to give it the best chance to be its best self. Education aims at freedom. But freedom is inextricably bound up with discipline, system, habit. To be free to write a novel requires mastery of grammar, style, psychology; to be free to think about the theory of relativity requires much study of mathematics and physics. Education aims to increase such freedoms, and a thousand more; in the meantime, however, behind and before each mastery, each accession to new freedom, lies routine, discipline, the developing of relevant habits.[3]

Dealing with the creative child in the classroom, Barron [4] points out, involves conflicting factors ofttentimes difficult to reconcile:

> The danger of the classroom is that it lends itself a bit too easily to becoming something of a jail, with its four walls and single authority, and the walls and authority surrounding it. But there are many unobtrusive jails in the world, including the jails we built into ourselves for purposes of self-confine-

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[2] Harold H. Anderson. "Creativity and Education." *College and University Bulletin,* of the Association for Higher Education, NEA, Vol. 13, No. 14. p. 1-4; May 1, 1961. p. 4.

[3] Frank Barron. "Creativity: What Research Says About It." *NEA Journal* 50: 17-19; March 1961. p. 17-18.

[4] *Ibid.*

ment when impulse becomes, on the whole, too arrogant. Creative impulse, however, is soon well schooled in jail-breaking.

It is with these problems and conditions that this chapter is concerned. What are the curriculum implications indicated by the new studies in creativity?

What Is Creativity?

Perhaps before we begin to answer this question we should examine a variety of definitions for creativity. The extent to which this concept can be defined is limited. An attempt is made here, however, to review current thinking.

The following definition is proposed by a public school group: "Creativity implies producing, fashioning, or bringing into existence, or the presentation of a new conception." [5] An issue of *Educational Leadership* devoted to creativity and the school opens with this definition:

> Creativity is . . . the urge to do something and, in the doing, to become something that is understandable and satisfying. The urge to do is manifest from the beginning of life. That it is the raw material out of which all the complex activities of human behavior evolve is generally recognized. That wholesome development of the individual is largely dependent on the opportunity given in early life for freedom of activity is also increasingly recognized. . . .[6]

"Creativity, psychologically defined," says Scofield, "is idiosyncratic perception of new intellectual relationships never before experienced by the individual between two or more stimuli. In lay terms this means that when a pupil gets insight into a relationship of facts which he never knew before, and he does this all by himself, he has been creative." [7]

Problem solving is basically creative, according to Keiler, who describes the act as "a process of becoming aware of hitherto unnoticed and unexpressed relationships, or of bringing into order a conglomeration of seemingly unrelated facts." [8] Is there any difference between creativity and inventiveness? On this question, he points out that creativity is used most often in reference to performance of the mind which results in concepts or works without immediate utilitarian value but with aesthetic or intellectual merit; the terms define essentially the same activity, but differ in relation to the results.

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[5] Board of Education, City of New York. "Creativity and the Curriculum." *Curriculum Materials* 13; March-April 1959. p. 1.

[6] Agnes Snyder. "Our Theme Is Creativity." *Educational Leadership* 14: 2-5; 1956. p. 2.

[7] Robert W. Scofield. "A Creative Climate." *Educational Leadership* 18: 5-6; 1960. p. 5.

[8] Manfred L. Keiler. "Creativity: Core of Art Education." *Educational Leadership* 18: 28-32; 1960. p. 28-29.

May defines actual creativity as the process of bringing something new into birth.[9] In a discussion of creativity as personality development, Anderson first identifies creativity as it is associated with a painting, a sculpture, a sonnet, an invention, a product that can be seen, studied and enjoyed. He then reports on another kind of creativity which he calls psychological or social invention:

> This is creativity not with objects but with persons: creativity in human relations. . . . [It] requires intelligence, sharp perceptions, subtle sensitivities, respect for the individual person, and a personal boldness to explain one's point of view and to stand for one's convictions. Creativity in human relations requires individual integrity and an ability to work with others. . . .[10]

Definitions of the creative process may also seem pertinent here. "By the creative process," says Kubie, "we mean the capacity to find new and unexpected connections."[11] Maslow[12] identifies several degrees of creativity. Primary creativeness comes from the unconscious, which is the source of new discovery, of real novelty, of ideas that depart from what exists at this point.

Wallas differentiates the following steps in the creative process: preparation, incubation, illumination, and verification; preparation is defined as including the whole process of intellectual education.[13]

Murray includes in the content for creative processing the preconscious and conscious as well as a great fund of knowledge of the external world. He believes that there must be mobility of these through a "passionate psychic energy." Energy, as abundant as it is "passionate," is one of the distinguishing marks of a truly creative person.[14]

Or we may seek a definition of creativity in descriptions of creative persons. May identifies these as "the ones who enlarge human consciousness. Their creativity is the most basic manifestation of man's fulfilling his own being in his world."[15]

Emerging from the social sciences is a concept of the adequate person which seems to have relevance. The adequate person is creative. His ability to be creative is recognized as an important asset. A number of terms commonly used to identify the processes involved in an individual's movement toward becoming his best are self-actualizing, self-fulfilling, and fully functioning. Bills proposes that such a person "is one who is continually in process of becoming." In accord with his view, people can be arranged along a continuum, from one end called "stasis" to the other end called "process."[16] The persons at one end tend to be noncreative, unchanging, rigid and inflexible. At the other end, persons are creative, flexible and imaginative, increasingly able to examine their own resources in light of new and changing requirements.

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[9] Rollo May. "The Nature of Creativity." *ETC* 16: 261-77; 1959. p. 263.

[10] Harold H. Anderson. "Creativity as Personality Development." *ETC* 16: 277-303; 1959. p. 277.

[11] Lawrence S. Kubie. *Neurotic Distortion of the Creative Process.* Lawrence, Kansas: University of Kansas Press, 1958.

[12] Abraham H. Maslow. "Emotional Blocks to Creativity." *Humanist* 18: 325-32; 1958.

[13] Graham Wallas. *The Art of Thought.* New York: Harcourt, Brace and Company, 1926.

[14] Henry A. Murray. "Vicissitudes of Creativity." *Creativity and Its Cultivation.* Harold H. Anderson, editor. New York: Harper and Brothers, 1959.

[15] Rollo May, *op. cit.*, p. 264.

Against this background of definitions for creativity, we will proceed in the next section to review the findings of three researchers who have focused directly on the characteristics of creative persons.

Characteristics of Creative Individuals

Ascertaining characteristics of creative individuals has been the focus of several recent studies. Various procedures are used for this purpose. Referred to earlier in this chapter and reported in more detail in the preceding chapter is an account of Barron's approach.

Characteristics Identified by Barron

While it may seem somewhat repetitious to do so, it may be well to recall the characteristics of creative individuals identified by Barron in his study:[17]

> Creative persons show a marked preference for drawings which are complex and dynamic. They display considerable tolerance for drawings which most people would consider chaotic.
>
> The creative response to disorder is to find an elegant new order more satisfying than any that could be evoked by a simpler configuration.
>
> Independence of judgment is commonly associated with originality of thought.
>
> The more original scientists express preferences similar to those of the artists.
>
> Original individuals insist to a most uncommon degree upon giving an interpretation of inkblots which takes account of all details in one comprehensive, synthesizing image.
>
> Original people are more troubled psychologically, but they also have far greater resources than most people with which to deal with their troubles.
>
> It almost seems at times that the creative individual is willing to stake his life if this is what he thinks is necessary.
>
> Creative vision has always involved an act of rejection preceding the act

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[16] See Chapter 8 of this yearbook.

[17] This list draws on the preceding chapter; also Frank Barron. "The Psychology of Imagination." *Scientific American* 199: 150-70; 1958.

of construction; the structure of the world as most people see it must be broken or transcended.

Creative people are especially observant, and they value accurate observation (telling themselves the truth) more than many other people do.

The objective freedom of the individual is at maximum when this capacity exists, and creative potential is directly a function of freedom.

Characteristics Identified by Guilford

In his study, Guilford considers the qualities, abilities and other traits that describe the creative person as well as qualities that do not necessarily describe him.

Some of the characteristics of creative persons identified by Guilford follow:[18]

The creative person is a fluent, flexible and elaborate thinker. Much of a person's success, however, depends upon his fund of special information within the field in which he is working.

A creative person is inclined to be on the impulsive side, Guilford reports. More than most, he lets his feelings and emotions dictate action, but he is also a reflective thinker. He likes to ponder over the nature of things, about why people behave as they do. He is an independent thinker.

The creative person is also self-assertive, self-sufficient, tolerant of ambiguity. He may welcome disorder and complexity.

It must not be assumed, however, that the possession of these attributes or aptitudes, Guilford warns, will insure that the individual will be creative. It also takes strong motivation and hard work to excel in performance and to show a high level of output. Nothing takes the place of faithful application to the creative task.

Characteristics Identified by Taylor

Studies designed to ascertain characteristics of creative persons in a number of different fields are increasing. Of special note is the identification of the characteristics of creativity from an analysis of scientific talent made by Taylor. These characteristics may be summarized as follows:[19]

Ability to sense problems is an intellectual characteristic usually included in creativity. Ability to sense ambiguities plus effective questioning ability may be important in creative activity. This ability may be described as curiosity in action.

Motivational characteristics suggested are curiosity or inquiringness of mind, liking to think, liking to manipulate and toy with ideas, intellectual persistence, need for recognition of achievement, need for variety, effective work habits, high energy, and willingness to take long-range risks.

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[18] Adapted from J. P. Guilford. "Psychology of Creativity." *Creative Crafts* 1: 4-8; April-May 1960.

[19] Adapted from Calvin W. Taylor. "A Tentative Description of the Creative Individual." *Human Variability and Learning.* Walter Waetjen, editor. Washington, D.C.: Association for Supervision and Curriculum Development, 1961. p. 62-79.

Other personality characteristics listed by Taylor are: devotion to autonomy, more self-sufficient than most people, more independent in making judgments, more complex as a person, more self-accepting, more resourceful and adventurous, more radical, more controlling of his own behavior, possibly more emotionally sensitive, and more introverted but bold.

Focus on the Educative Process

"This newly heightened interest in one of man's most significant faculties is good and long overdue," Keiler contends. "The primary reason for it can probably be found in the spirit of our times. Seldom during the course of history has the need been so acute for solutions to new or apparently solved problems—be they technological, social, or psychological." [20]

But can anything be done to increase one's creative production? Guilford answers the question affirmatively. Aptitudes including those most crucial to creative thinking are thought to be determined both by heredity and by learning. Although heredity may set the ceiling, Guilford maintains, it can safely be said that rarely does any individual reach his ceiling.[21]

Basic to the viewpoint of this chapter is the conviction that the strength of a democracy is in large measure dependent on the extent to which all its people are able to use energy in creative and constructive ways, to make wise and just decisions in accord with democratic values in the home, in their work, at the conference table, or in the voting booth. The development of such strength is in large degree dependent on the extent to which all the people are informed, responsible, thinking and creative citizens, concerned about the well-being of others and able to understand and live in accord with values essential to the improvement and maintenance of a free society. The goal, as defined by Fletcher, is "to have all individuals deliberately and consciously making rational responsible choices in the full light of alternatives and consequences." [22]

Dependable answers to many questions about the development of considerate, capable and creative people are difficult to come by. Acquiring adequate knowledge about the development of the individual's full potential, as we know, is not easy. Fortunately, knowledge which contributes to our understanding of the factors involved in this development is accumulating.

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[20] Manfred L. Keiler, *op. cit.*, p. 28.

[21] J. P. Guilford, *op. cit.*, p. 7-9.

[22] C. Scott Fletcher. *Continuing Liberal Education.* Report of 1955-57, Fund for Adult Education. New York: the Fund, 1957. p. 10.

Open and Closed Systems of Education

Among the recent contributions to increased understanding of the development of creative persons is a definition of the role of closed and open systems of education described by Anderson.[23] The open system is a system of relationships which accepts uniqueness in perception and thinking. Examples are found in the seminar, the class discussion, the term paper, the original experiment, or student project. The open system permits originality, experimentation, initiative and invention. Anderson reports that the greatest opportunities for creative learning are found in infancy and in the preschool years, although examples may be found on different levels of the educational program.

The closed system is concerned very little with originality or invention by the student. The concern here is mainly with acquiring a body of knowledge and memorizing facts. The student has only to learn what his forebears have already discovered or agreed upon. He learns to follow directions and to do what he is told. For most of us, Anderson says, that is where our school learning stopped. It is, however, the system by which the heritage of the race is preserved.

Also in the closed system is fixed-answer problem solving. The answers are in the back of the book or in the teacher's head or in the program of the teaching machine. Psychological laboratory studies in learning, the author explains, have been obtained from "fixed-answer" or closed-system experiments. Reward-and-punishment experiments and "avoidance learning" in animals or in humans have defined goals and patterns of research design set in advance, excellent for the kind of obedience learning important in dog training. However, they do not produce the open-system kind of creativity found in humming a new tune, writing a poem, or making a scientific invention.

A closed system of education, it seems apparent, does not provide the learning opportunities that enable each individual to use his energies in creative and constructive ways. As opposed to an open system of education, a closed system encourages conformity and resistance to change.

To predict what knowledge, qualities and competencies will be of most worth to meet tomorrow's need is becoming increasingly difficult. However, there is a growing awareness that what will be required of today's children for success in their world of tomorrow will be vastly different from what was found to be adequate in the era now passing.

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[23] Adapted from Harold H. Anderson, *op. cit.*

Development of Adequate Personalities

In view of the complexities and uncertainties about current and future needs in our society today, continuous examination of the factors involved in the education of its people becomes increasingly important. Now, more than ever, concepts of education need to be examined in light of adequate knowledge about opportunities as well as about the demands of a complex, changing, and interdependent world.

One of the proposals made for more adequately preparing our young people to meet current and future needs is to focus more of our efforts on the development of self-actualizing, fully-functioning, self-directive people, as has already been pointed out earlier in this chapter. Although judgments differ to some extent about the concepts involved in these terms, most of the writers seem to agree that the element of creativity plays a major role.

As Combs and Snygg indicate, adequate personalities are products of positive experience. Representing a tragic waste of human potential are experiences that are destructive to human dignity and integrity or that indoctrinate people with false perceptions of themselves as people of little worth. Adequate personalities are not a luxury but an increasing necessity. Inadequate persons constitute an ever present danger to the rest of us in an interdependent modern society. We must continuously seek new and better ways of providing the kind of experiences which contribute to adequacy and self-fulfillment for more persons. The best guarantee we have that people will operate effectively, to fulfill their own and other people's needs, is that their own need for feelings of worth and value has been adequately met in the past.[24]

Attitudes Toward Self and Others

A number of studies have attempted to determine the extent to which certain factors make a difference in the effectiveness of the educative process in the development of positive attitudes toward self and others. We are all aware that this objective is not easily accomplished. The findings of some studies, however, have pointed up the extent to which certain people are more successful than others, at least partly because of the positive attitudes they have toward themselves and others.

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[24] Adapted from Arthur W. Combs and Donald Snygg. *Individual Behavior: A Perceptual Approach to Behavior*. Revised Edition. New York: Harper and Brothers 1959. p. 264.

Some of the available evidence indicates, for example, that school administrators with positive attitudes toward themselves and toward others, seem to have considerable advantage over other administrators because of their ability to practice democratic leadership. Findings also indicate that school administrators with negative attitudes toward themselves but with positive attitudes toward others, seem to stand a better chance of success than do administrators with positive attitudes toward themselves but with negative attitudes toward others.[25]

Freeing Capacity To Be Creative

While scientific research in the behavioral sciences does not permit conclusive answers to a number of questions about human potential and education, there is reason to believe, as we pointed out earlier, that few if any human beings are born without creative potential. Assuming, therefore, that our belief is correct, it seems logical that a major responsibility of education is to make available to all individuals the kinds of learning opportunities that foster the development of creativity.

A child's use of energy in creative ways may be observed from the very beginning as he persists in exploring his environment and continues to seek adequate answers to his questions. For each individual, creative or inventive effort seems to be involved as part of a continuous process of seeking self-fulfillment or self-actualization, or, as some would say, of working to "become his best."[26]

However, the use of creative, inventive or imaginative power seems to become less and less characteristic of human endeavor among children and youth as they grow older and among adults as they advance in years. A common characteristic of people as they mature appears to be resistance to learning something new, especially if new learning seems to the person to involve difficult changes in his behavior. Determination to have one's way "no matter what" is not uncommon. Ability to face realities in accord with current and changing future needs for most persons, it seems, becomes increasingly difficult as they grow older. Whatever the individual's creative potential might have been, without adequate opportunity to develop his ability to use energy in creative ways, it may grow dim. His creative potential may no longer be available to him except perhaps in a limited way or when considerable assistance is present to help him perceive his situation in new ways.

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[25] Robert E. Bills. "Attributes of Successful Educational Leaders." *Interdisciplinary Research in Educational Administration.* Lexington, Kentucky: Bureau of School Services, University of Kentucky, 1953. Chapter 3; also Robert L. Hopper and Robert E. Bills. "What's a Good Administrator Made Of?" *School Executive* 74: 93-95; March 1955.

[26] Abraham E. Maslow. "Some Basic Propositions of a Growth and Self-Actualization Psychology." ***Perceiving, Behaving, Becoming: A New Focus for Education.*** 1962 Yearbook. Washington, D.C.: Association for Supervision and Curriculum Development, 1962. Chapter 4.

Must every individual sooner or later lose his capacity to be creative in approaching new situations? What kinds of learning situations, if any, foster the development of an individual's ability throughout his lifetime?

Again, adequate answers to these questions are not easy to come by. We know, however, that many individuals do become increasingly creative. Artists, for example, continue painting pictures. Composers continue writing new songs. What makes the difference? Why do some persons continue throughout a long lifetime the development of their creative potential? Why do a vast majority of people move toward conformity or toward a goal in which the need for change will seem not to be essential?

As indicated earlier, the kinds of situations that foster the development of what Bills calls "stasis" people need more than ever to be examined in light of the growing demand for people to become increasingly able to change in this rapidly moving world. In some way, homes, schools and other institutions must, to a greater extent than ever, help provide the kinds of opportunities that "free" children's capacities to learn and to create. It is also important to assist teachers in becoming increasingly able to free their own capacities for continuous development of creative potential. Freeing children to create and to become their best is in large measure dependent on the extent to which the adults closest to children are themselves free to make the best of their own potential.

Our thesis here is that a closed system of education, as defined by Anderson, contributes to the development of inflexible and noncreative persons. An open system, on the other hand, facilitates the development of creative, imaginative people increasingly able to change in light of new knowledge and new requirements.

To promote an open system of this kind, we need more knowledge of the process of freeing the capacity of individuals to be creative. Important, as part of this knowledge, is a greater understanding of the factors which tend to curtail or block creative effort. No matter how much creative potential a child seems to have when his life begins, unless his creative potential receives the kind of nurture needed for optimum development, learning to use energy in creative and constructive ways can become increasingly difficult. The persons in a child's environment must assist him in such ways as to help free his capacity for using energy creatively and constructively. Then he will continue to explore his environment, seek answers to his questions, experiment with media available to him. In a variety of ways, he will try to fashion or bring into existence something new and different.

Factors of Current Concern

Several factors relative to the development of creative potential have been identified in this chapter. These factors are involved in helping pupils become increasingly able to use energy in creative, imaginative and inventive ways.

Our purpose here is to identify certain current concerns about the care and nurture of the creative processes.

Understanding Human Variability and Potentialities

Many teachers have found ways of providing opportunities designed to meet a wide range of individual differences and have thus contributed to the development of the potentialities of all. But, as Miel tells us, much still remains to be done. Educators, she contends, have not really given up many of the traditions of schooling which try to make individuals as much alike as possible.[27]

To the extent we are facing the facts of human variability and potentialities and are meeting problems of education for change, more than likely creative resources of children are at least partly cared for and nurtured. Problems of current concern, however, make us wonder about this. Some of the available evidence seems to show that a more common trend in some situations seems to be a reverting to an earlier day when education was mostly working toward the achievement of high marks regardless of what the personal needs might be.

A well-known psychiatrist claims that the school has failed to develop human potentialities, to develop spontaneity and creativity; in fact, that "an intensification of the neurotic process through repetitive drill mars our educational system from primary grades through professional and graduate levels." As Kubie puts it, "Limitless repetition without the guidance of insight is not merely self-defeating; it does deeper damage by hampering spontaneous, 'intuitive,' *i.e.* preconscious, functions." [28]

Academic Standards and Creativity

Current pressures on schools to maintain high academic standards mean different things to different people. In a number of situations, the response by school people has taken the form of increased pressures on children for rote memorization of facts. In such situations, teacher aspirations for the development of creative potential have been lowered.

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[27] Alice Miel. "Educational Frontiers for the 1960's." *Children and Youth in the 1960's*. Washington, D.C.: Government Printing Office, 1960. p. 118-19.

[28] Lawrence S. Kubie, *op. cit.*, p. 122-23.

Does working hard for achievement in the academic subjects necessarily stand in the way of the development of creativity? Does superior performance in academic learning limit the prospects for high level accomplishment in creativity? Should students be advised to choose between paths leading toward academic excellence and paths that foster the development of creative potential? Or is it conceivable that high quality teaching might help provide learning opportunities for children so that academic learning and the development of creativity would reinforce each other?

In view of the concepts identified throughout this chapter, development of one's creative potential can hardly be considered as something separate and apart from learning in academic or other curriculum areas, especially since the development of intellectual power as part of creativity is an important aim. Particularly applicable to this point, it would seem, is the difference between closed and open systems of education as defined by Anderson.

Motivation and Creativity

The current attention to testing programs in determining which students shall get into college and also which ones shall win scholarships is among the factors that may tend to stand in the way of progress in the development of creativity. Success on national tests is given far more importance, educators report, than can be justified as a determiner of educational success. Furthermore, some students learn to want answers to trivial questions because this, they find, is what counts.

A study sponsored by several professional organizations points out that a factor which can easily serve to retard creative thinking is the experience of learning that a single answer only is acceptable. Some students may see that more than one answer to a question could be correct, but they are required to provide the answer specified by the test maker.[29]

From the earliest periods in our history, it seems, people have been seeking more productive ways of motivating children to learn what is considered most important by those responsible for their growth and development.

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[29] Sponsored by the American Association of School Administrators and other organizations.

Adequate and dependable knowledge about the nature of motivational factors involved in learning and human behavior is far from easy to obtain. Perhaps our greatest accomplishment in this respect is a growing realization of the complexities involved in the educative process. Fortunately our knowledge of human beings and their behavior, though still far short of what is needed, has grown considerably in recent years. As a result, we have gained new insight into motivational factors.

In accord with the available evidence about the human organism, there seems to be within each individual an inner drive to learn. There is reason to believe that if the opportunities available to a child tend to nurture his inner drive to learn in ways which contribute to his growth and development, artificial means intended to pressure the child to greater effort in his learning are not likely to serve a useful purpose. If the learning situations provided for pupils tend to weaken a natural or inherent motivation for learning, the development of creative potential will be difficult, if not impossible, to achieve.

As indicated earlier in this chapter, a system of education that is closed tends to motivate pupils to conform. An open system, on the other hand, encourages the development of creative potential. We have reason to believe that motivation to learn is a natural phenomenon—the seeking of self-actualization or self-fulfillment. If this inner drive to learn is wisely nurtured, the development of creativity in an individual can rightfully be an expected outcome.

Early scientific investigations were based on the assumption that human behavior was motivated largely by biological drives and that these could be controlled by external manipulation. Pavlov's experiments, for example, were demonstrations of this nature. Some of the current demonstrations involving the use of teaching machines are based on similar assumptions. To the extent that behavior can or will be motivated to respond to external manipulation, the role of creativity in the educative process may be in doubt.

On the other hand, a number of studies give support to the thesis that other forces besides the innate drive to learn already described are important in the motivation of human behavior and have special significance for the maintenance and preservation of a free society. Values and attitudes, an individual's perception of a situation, his concept of self, his striving for self-consistency—these and many other forces bear on human behavior.

As indicated earlier, current concern about pressures on schools to maintain high academic standards has, no doubt, contributed to the improvement of education in many places. In a number of schools, however, maintaining high standards means pressure to master bodies of subject matter in order to pass tests. As a result, rote memorization of facts may occupy a considerable portion of children's learning time, leaving little opportunity, for example, for developing skills of critical thinking or for developing creativity.

The extent to which such situations may prevail is difficult to determine. Hughes, in a study of teaching, found that 87.8 percent of the teaching acts observed were devoted to control of one sort or another. Very little of the learning time, so analyzed, allowed even a beginning of autonomous thought and only a small fraction could possibly have led to the cultivation of independence of thought or of any of the other elements of creativity.[30]

More teachers who can help children and youth become increasingly creative are needed. The common practice of recognizing pupils with high IQ's as representative of a high level of intelligence without taking into account other possible dimensions of ability is surely unwise. In their study of giftedness and creativity, Getzels and Jackson reveal much of potential wealth in relation to teaching.[31] Their investigation stresses the need for expanding the present concept of "giftedness" to include other potentially creative groups besides the high IQ children.

In this chapter, we have identified some concepts about creativity that over the years have emerged, as knowledge about the factors involved has increased and as a growing need for a more creative, inventive, and self-directive people has been recognized. We have found that, although educators generally have long been concerned with developing and nurturing creativity in people, earlier concepts of creativity were usually limited to concerns about the identification and development of certain special aptitudes in such areas as music, art, creative writing and the like. Not a large number of persons would be expected to have the specialized creative potential indicated.

That creative potential may be a part of every individual's inheritance is not yet accepted by all spokesmen in education. However, there appears to be, as we have indicated throughout the chapter, evidence that, except for individuals severely deprived of ability to learn, more than likely no one is born without potential for learning to use his energy in creative ways. This chapter is based on an assumption that this is true. Educators generally, we have maintained, recognize a need for releasing each child's creative potential and consider this a basic objective of education, especially in the elementary school.

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[30] Marie M. Hughes. *Development of the Means for Assessing the Quality of Teaching in Elementary Schools.* Salt Lake City, Utah: University of Utah, 1961.

[31] Jacob W. Getzels and Philip W. Jackson. "Giftedness and Creativity." *Newsletter.* Chicago, Illinois: University of Chicago; November 1960. p. 5-6.

An important reason for current concern about the cultivation of creativity in all persons, we have emphasized, is a growing recognition of its significance in the development of a genuinely free people. The creative potential in every child must be fully developed in order that he can become as well equipped as possible to cope with problems of contemporary society. To help everyone become his best self is, as we know, a major obligation to the individual in American democracy. This, in turn, is our best safeguard for the maintenance and preservation of a free society. Adequate and appropriate development of each individual's creative potential can make important contributions to this end.

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Notes on Contributors to the Yearbook

Frank Barron is research psychologist at the University of California, Berkeley. The studies summarized in his chapter were carried out at the Institute of Personality Assessment and Research and are part of a larger program of Institute research which has been supported primarily by the Carnegie Corporation and to a lesser degree by the Ford Foundation. The research as a whole deals with creativity as it is manifested in persons who have achieved significantly in architecture, creative writing, mathematics, and the physical and natural sciences. Mr. Barron is coeditor with Calvin W. Taylor of *Scientific Creativity* (New York: John Wiley & Sons, 1962). He has prepared for later publication a full-length report from which the studies described in his chapter are drawn; it will be published under the title *Psychological Vitality and Creative Freedom* by D. Van Nostrand & Company, Princeton, N. J.

Robert E. Bills, now Assistant Dean for Research at the College of Education, University of Alabama, was formerly chairman of the Psychology Department at Auburn University and, before that, in the Psychology Department at the University of Kentucky. From his base in clinical psychology, he has been deeply involved in studies of teacher improvement and of school administration. A member of the ASCD Research Commission, he has served as staff member in several curriculum research institutes. One of his institute papers is included in ASCD's *Learning More About Learning* (Washington, D.C.: the Association, 1959).

Paul Hoover Bowman was until recently director of the Quincy Youth Development Project sponsored by the Committee on Human Development of the University of Chicago. He is now head of the Department of Preventive Mental Health, The Greater Kansas City Mental Health Foundation, Kansas City, Missouri. Mr. Bowman served as a speaker for the Fourth ASCD Curriculum Research Institute; his paper appears in ASCD's *Freeing Capacity To Learn* (Washington, D.C.: the Association, 1960). He is also coauthor of a report on the Quincy project that has just been published: *Growing Up in River City* (New York: John Wiley and Sons, 1962).

Lloyd Allen Cook, now retired and living in Union, Washington, is Vice President Emeritus of Wayne State University in Detroit. In the field of educational sociology, his books and his personal example have provided leadership for many years. His most recent book, written with his wife, Elaine, is *A Sociological Approach to Education* (New York: McGraw-Hill Book Company, 1960).

Jane Franseth is Specialist for Rural Education in the Office of Education, U.S. Department of Health, Education, and Welfare. Past president of ASCD, she has served the Association in many roles. A current interest of Miss Franseth's is the study of what research says about grouping; the Office plans to publish her review in the coming year. Miss Franseth is author of *Supervision as Leadership* (Evanston, Illinois: Harper and Row Publishers, Inc., 1961).

Lawrence K. Frank, now retired, residing at 18 Goden Street, Belmont, Massachusetts, served as director of the Caroline Zachry Institute of Human Development in New York City (1945-1951) and has occupied many other positions of leadership in a long and distinguished career. Among his numerous publications, his most recent are the Burton Lecture for 1959, *The School as Agent for Cultural Renewal* (Cambridge, Massachusetts: Harvard University Press, 1960) and *The Conduct of Sex* (New York: William Morrow and Company, 1961).

Alexander Frazier has been director of University School and the Center for School Experimentation at The Ohio State University in Columbus since 1958. Before then, he served in public school curriculum development programs in several states. Mr. Frazier is presently a member of the Executive Committee of ASCD.

Dwayne Huebner is Associate Professor at Teachers College, Columbia University, where he is concerned, among his other responsibilities, with the development of a program for the education of persons interested in curriculum research and theory development. As reflected in his chapter, he is concerned with bringing to the attention of educators the insights possessed by modern theologians and philosophers.

Victor B. Lawhead is Associate Dean at Ball State Teachers College in Muncie, Indiana. His professional interests center on higher education and the secondary school curriculum. Mr. Lawhead was a member and then chairman of the Association's Commission on the Core Curriculum, now the Commission on General Education.

Marshall McLuhan is Professor of English, St. Michael's College, University of Toronto. His conception of the new post-literate world and of the tasks faced by modern man in emancipating himself from "linear learning" has caused him to be widely sought as speaker and consultant in fields concerned with communication theory. He served as speaker and consultant in one of the seminars organized by the Instructional Materials Commission of ASCD. Mr. McLuhan's most recent work is *Gutenberg Galaxy* (Toronto, Canada: University of Toronto Press, 1962).

Rhoda Métraux, an anthropologist, is Associate Director of Studies in Allopsychic Orientation at the American Museum of Natural History. She is the author, with Margaret Mead, of *The Study of Culture at a Distance* (Chicago: University of Chicago Press, 1953) and of *Themes in French Culture; Preface to a Study of French Community* (Stanford: Stanford University Press, 1954). She has in preparation a study on "The Changing Image of the Scientist."

Alice Miel is chairman of the Department of Curriculum and Teaching at Teachers College, Columbia University. Past president of ASCD, she has served the Association in many capacities. Her most recent publication is *Creativity in Teaching: Invitations and Instances,* which she edited (Belmont, California: Wadsworth Publishing Company, 1961).

Lois Barclay Murphy is a research psychologist at the Menninger Foundation in Topeka, Kansas. She has been involved there in the studies of Kansas children and youth on which her chapter draws. Her books include *Colin—A Normal Child* (*Personality in Young Children,* Volume II. New York: Basic Books, 1956) and, with others, *The Widening World of Childhood: Paths Toward Mastery* (New York: Basic Books, 1962).

Fannie R. Shaftel is Associate Professor of Education at Stanford University. She has served the Association most recently as chairman of the Commission on International Understanding. Several publications are due to appear soon from the work of that commission. Mrs. Shaftel is the author with her husband, George A. Shaftel, of a widely used publication in the human relations field, *Role-Playing the Problem Story* (New York: National Conference of Christians and Jews, 1952).

Hilda Taba is Professor of Education and associate chairman of the Division of Education, San Francisco State College, California. Miss Taba was a member of the evaluation study of the Eight Year Study. Later she served as director of the Intergroup Education in Cooperating Schools project (1945-1948) sponsored by the American Council on Education and supported by the National Conference of Christians and Jews. She is chairman of the ASCD Research Commission. Her most recent book, just published, is *Curriculum Development Theory and Practice* (New York: Harcourt, Brace, and World, 1962).

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